

Minutes of a meeting of the School of Mathematics held January 19, 1959:

Present: Professors Beurling, Borel, Gödel, Montgomery, Morse, Oppenheimer, Selberg, Weil, and Whitney.

1. Milton Lees was voted membership for the academic year 1959-60 with a salary of \$5,800 to come from a contract. [The Director will write when the contract has been decided upon.]

2. Edoardo Vesentini was voted membership for the first term of 1959-60 with a grant of \$2,500. [The Director will write.]

3. Max Deuring was voted a grant of \$7,500 during his membership through the academic year 1959-60. In addition, \$500 will be reserved for him in case he does not obtain travel funds from some other source. [The Director will write.]

4. Jun-ichi Igusa was voted membership for the academic year 1959-60 during the tenure of his Sloan Foundation fellowship. The sum of \$1,000 will be reserved for him in case he needs further support from us. [The Director will write.]

5. Nathan J. Fine was voted membership for the academic year 1959-60 conditional on his receiving support from the Guggenheim Foundation. [The Director will write.]

6. Warren Ambrose was voted membership for the academic year 1959-60 conditional on his receiving outside support. [The Director will write.]

7. It was voted not to offer Pesi Masani membership during 1959-60. [Professor Morse has written.]

8. Ton van de Ven was voted membership for the academic year 1959-60 with a grant of \$4,500. An additional sum of \$500 will be reserved for him in case he does not obtain travel funds from some other source. [The Director will write.]

9. Heinz Huber was voted membership for the academic year 1959-60. The assistant funds of Professor Weil will be used for this purpose with an additional grant, if necessary. [Professor Weil will write informally.]

10. It was voted not to grant membership to Jan W. Jaworowski in 1959-60. [Professor Montgomery will write.]

11. It was voted not to grant membership in 1959-60 to any of the Polish mathematicians recommended by Professors Borsuk and Kuratowski. [Professor Borel will write to Professor Borsuk; Professor Montgomery will write to Professor Kuratowski.]

318.

12. It was voted not to grant membership to John D. Baum for 1959-60 during his National Science Foundation Science Faculty fellowship. [Professor Whitney will write.]

13. It was voted not to grant membership to Robert L. Davis for 1959-60 during his National Science Foundation Science Faculty fellowship. [Professor Whitney will write.]

14. It was voted not to grant membership in 1959-60 to Russell Remage, Jr., during his National Science Foundation Science Faculty fellowship. [Professor Whitney will write.]

15. It was voted not to grant membership in 1959-60 to George E. Schweigert during his National Science Foundation Science Faculty fellowship. [Professor Whitney will write.]

16. Louis de Branges was voted membership for the academic year 1959-60 with a salary of \$5,400 to come from a contract. [The Director will write.]

17. Albert L. Whiteman was voted membership for the academic year 1959-60 conditional on his receiving a Guggenheim Foundation fellowship. [The Director will write.]

18. It was voted not to offer Samuel I. Goldberg membership during 1959-60. [Professor Whitney will write.]

Hassler Whitney

Secretary

319.

January 19, 1959
Appointments, 1959-1960

Appointments with Institute grants-in-aid:

Remaining from 1958-1959	\$35,558.87
Expected appropriation for 1959-1960	<u>75,000.00</u>

\$110,558.87

S. Araki (also asst. trans.)	\$ 800.00	
M. F. Atiyah (I) (also reserv'n)	2,500.00	
P. Bernays (II)	4,500.00	
M. Deuring (also reserv'n)	7,500.00	
A. Haefliger (also asst. trans.)	500.00	
F. Hirzebruch	4,500.00	
E. Hlawka (I)	3,500.00	
P. D. Lax (I)	500.00	
H. Morikawa	5,500.00	
A. Néron (also reserv'n)	5,500.00	
T. Ono	5,000.00	
R. Remmert (or contract)	5,500.00	
I. Satake	5,000.00	
K. Schütte (also reserv'n)	5,500.00	
H. Toda (also reserv'n)	5,300.00	
T. van de Ven (also reserv'n)	4,500.00	
E. Vesentini (I)	2,500.00	
J.H.C. Whitehead (II)	<u>4,000.00</u>	\$72,600.00

Reservations:

M. F. Atiyah (I)	\$ 500.00	
M. Deuring	500.00	
E. B. Dynkin	6,000.00	
I. M. Gelfand	6,000.00	
J-i. Igusa	1,000.00	
O. A. Ladyzenskaja	6,000.00	
A. Néron	500.00	
K. Schütte	500.00	
H. Toda	500.00	
T. van de Ven	<u>500.00</u>	<u>22,000.00</u>
		-94,600.00
		\$15,958.87

Appointments with salaries from contracts:

Air Force Office of Scientific Research, AF 49(638)-253, S/A 1, (58-433):
 (Two-year contract, 1959-61, of which the following figures are one-half.)

Salaries, 1959-60	\$35,200.00
Overhead (25 percent of salaries)	<u>8,800.00</u>
	\$44,000.00

L. de Branges	\$5,400.00	
L. Gårding (I)	6,000.00	
B. Grünbaum	6,000.00	
M. Lees	5,800.00	
R. Remmert (or grant)	<u>6,500.00</u>	\$29,700.00
Overhead (25 percent of salaries)	<u>7,425.00</u>	<u>37,125.00</u>
		\$ 6,875.00

320.

Office of Ordnance Research contract proposal:

Salaries, 1959-60		\$16,000.00
Overhead (25 percent of salaries)		<u>4,000.00</u>
		\$20,000.00
A. Gleason (II)	\$6,500.00	
G. Temple (I)	5,000.00	
F. Wolf (I)	3,000.00	
Overhead (25 percent)	<u>3,625.00</u>	<u>-18,125.00</u>
		\$ 1,875.00

National Science Foundation contract G-5863, 1958-60:

Remaining in salaries from 1958-59		\$ 4,600.00
Salaries, 1959-60		20,300.00
Overhead (15 percent of 1959-60 salaries)		<u>3,045.00</u>
(Travel to meetings, not included in total = \$655.)		\$27,945.00
G. E. Bredon	\$5,800.00	
H. B. Helson (II)	4,800.00	
K. Kodaira (II)	7,000.00	
M. Nakaoka	6,100.00	
Overhead (15 percent)	<u>3,045.00</u>	<u>-26,745.00</u>
	(+ \$410 from 58-59 overhead)	\$ 1,200.00

Assistant funds:

S. Araki (Borel transfer to grants)(+ grant)	\$4,500.00
U. Christian (Veblen)	4,500.00
A. Haeffliger (Whitney transfer to grants)(+ grant)	4,500.00
H. Huber (Weil transfer to grants)(possible additional grant)	4,500.00
W. Huebsch (Morse)	5,000.00
D. Kurepa, a term (Gödel transfer to grants)	3,500.00

Appointments with other sources of funds:

W. Ambrose, conditional on outside support
 E. Asplund, conditional on outside support
 N. Dunford, conditional on outside support
 N. J. Fine, conditional on receiving Guggenheim Foundation fellowship
 L. Gillman, Senior National Science Foundation fellowship
 E. Grosswald, Senior National Science Foundation fellowship
 J-i. Igusa, Sloan Foundation fellowship
 J. F. Nash, Senior National Science Foundation fellowship
 R. Palais, National Science Foundation fellowship
 R. R. Phelps, National Science Foundation fellowship
 J. Poncet, own funds
 F. Raymond, National Science Foundation fellowship
 S. Smale, National Science Foundation fellowship
 A. L. Whiteman, conditional on receiving Guggenheim Foundation fellowship
 R. F. Williams, National Science Foundation fellowship
 R. J. Wisner, Science Faculty National Science Foundation fellowship

321.

Summary:

Grants remaining uncommitted	\$15,958.87
Salaries remaining from Air Force contract	5,500.00
Salaries remaining from proposed Ordnance contract	1,500.00
Salaries remaining from NSF contract	1,200.00

Hassler Whitney
Secretary

322.

Minutes of a meeting of the School of Mathematics held February 13, 1959:

Present: Professors Beurling, Borel, Gödel, Montgomery, Morse, Selberg, Weil, and Whitney.

1. Nathan Fine was voted membership for the academic year 1959-60 conditional on his receiving outside support. [The Director will write.]
2. Morris Hirsch was voted membership for the academic year 1959-60 conditional on his receiving a renewal of his National Science Foundation fellowship. [Professor Whitney will notify him informally.]
3. John T. Tate was voted membership for the fall term of 1959-60 during his Sloan Foundation fellowship. [The Director will write.]
4. Stewart S. Cairns was voted membership for the academic year 1959-60 conditional on his receiving outside support. [The Director will write.]
5. Gaisi Takeuti was voted membership for the fall term of 1959-60 during the continuation of his National Academy of Sciences award. [The Director will write.]
6. Shin'ichi Kinoshita was voted membership for the academic year 1959-60. His grant will come from a transfer of \$4,500 of Professor Montgomery's assistant fund plus \$800 from the grants-in-aid making a total of \$5,300. [The Director will write.]
7. Harold Widom was voted membership for the academic year 1959-60 conditional on his receiving outside support. [The Director will write.]
8. William M. Boothby was voted membership for the academic year 1959-60 conditional on his receiving outside support. [He will not be notified at present.]
9. John R. Isbell was voted membership for the academic year 1959-60 conditional on his receiving outside support. [He will not be notified at present.]
10. Joachim Lambek was voted membership for the academic year 1959-60 conditional on his receiving outside support. Since the meeting, we have received word that he has received support in the form of a Canadian National Research Council fellowship and part salary from McGill University. [The Director will write.]
11. It was voted not to grant membership to the following:
 - Durga P. Banerjee
 - Yuan Shih Chow
 - Hans E. Debrunner

Tadashi Nagano

Yasuro Tomonaga

Augustus J. Ward

Malcolm Goldman

Karel DeLeeuw

Gerald W. Hedstrom

Charles J. Titus

[Professor Morse will write to Ward; Professor Whitney will notify the others.]

12. Michel Kervaire was voted a salary of \$1,200 from the National Science Foundation contract for a visit of about two and one-half months in the summer of 1959. [The Director will write.]

13. It was voted to invite Alex Heller to spend the summer of 1959 at the Institute during his Sloan Foundation fellowship. [The Director will write.]

14. It was voted to increase the salary for Ulrich Christian by \$500, bringing it to \$5,000 for the academic year 1959-60. [The Director will write.]

15. If there is difficulty in meeting the budget for assistants, part of the assistant funds that have been transferred to the grants fund will be returned to the assistants fund.

Hassler Whitney

Secretary

324.

February 13, 1959
Appointments, 1959-1960

Appointments with Institute grants-in-aid:

Remaining from 1958-1959	\$35,558.87
Expected appropriation for 1959-1960	<u>75,000.00</u>
	\$110,558.87

S. Araki (also asst. trans.)	\$ 800.00	
M. F. Atiyah (I) (also reserv'n)	2,500.00	
P. Bernays (II)	4,500.00	
M. Deuring (also reserv'n)	7,500.00	
A. Haefliger (also asst. trans.)	500.00	
F. Hirzebruch	4,500.00	
E. Hlawka (I)	3,500.00	
S. Kinoshita (also asst. trans.)	800.00	
P. D. Lax (I)	500.00	
H. Morikawa	5,500.00	
A. Néron (also reserv'n)	5,500.00	
T. Ono	5,000.00	
I. Satake	5,000.00	
K. Schütte (also reserv'n)	5,500.00	
H. Toda (also reserv'n)	5,300.00	
T. van de Ven (also reserv'n)	4,500.00	
E. Vesentini (I)	2,500.00	
J.H.C. Whitehead (II)	<u>4,000.00</u>	\$67,900.00

Reservations:

M. F. Atiyah (I)	\$ 500.00	
M. Deuring	500.00	
E. B. Dynkin	6,000.00	
I. M. Gelfand	6,000.00	
J-i. Igusa	1,000.00	
O. A. Ladyzenskaja	6,000.00	
A. Néron	500.00	
K. Schütte	500.00	
H. Toda	500.00	
T. van de Ven	<u>500.00</u>	<u>22,000.00</u>
		<u>-89,900.00</u>
		\$20,658.87

Appointments with salaries from contracts:

National Science Foundation contract G-5863, 1958-60:

Remaining in salaries from 1958-59	\$ 4,600.00
Overhead from 1958-59	690.00
Salaries, 1959-60	20,300.00
Overhead (15 percent of 1959-60 salaries)	<u>3,045.00</u>
(Travel to meetings, not included in total = \$655.)	\$28,635.00

G. E. Bredon	\$5,800.00	
H. B. Helson (II)	4,800.00	
M. Kervaire, summer '59	1,200.00	
K. Kodaira (II)	7,000.00	
M. Nakaoka	<u>6,100.00</u>	\$24,900.00
Overhead (15 percent)	<u>3,735.00</u>	<u>-28,635.00</u>

00

325.

Air Force Office of Scientific Research, AF 49(638)-253, S/A 1, (58-433):
 (Two-year contract, 1959-61, of which the following figures are one-half.)

Salaries, 1959-60		\$35,200.00
Overhead (25 percent of salaries)		8,800.00
		<u>\$44,000.00</u>
Remaining from salaries and overhead, 1958-59		500.00
		<u>\$44,500.00</u>

L. de Branges	\$5,400.00	
L. Gårding (I)	6,000.00	
B. Grünbaum	6,000.00	
M. Lees	5,800.00	
R. Remmert	<u>6,500.00</u>	\$29,700.00
Overhead (25 percent of salaries)	<u>7,425.00</u>	-37,125.00
		<u>\$ 7,375.00</u>

Office of Ordnance Research contract proposal:

Salaries, 1959-60		\$16,000.00
Overhead (25 percent of salaries)		4,000.00
		<u>\$20,000.00</u>
A. Gleason (II)	\$6,500.00	
G. Temple (I)	5,000.00	
F. Wolf (I)	<u>3,000.00</u>	\$14,500.00
Overhead (25 percent)	<u>3,625.00</u>	-18,125.00
		<u>\$ 1,875.00</u>

Assistant funds:

S. Araki (Borel transfer to grants)(+ grant)	\$4,500.00
U. Christian (Veblen)	5,000.00
A. Haeffliger (Whitney transfer to grants)(+ grant)	4,500.00
H. Huber (Weil transfer to grants)(possible additional grant)	4,500.00
W. Huebsch (Morse)	5,000.00
S. Kinoshita (Montgomery transfer to grants)(+ grant)	4,500.00
D. Kurepa (I) (Gödel transfer to grants)	3,500.00

Appointments with other sources of funds:

W. Ambrose, conditional on outside support
 E. Asplund, conditional on outside support
 W. M. Boothby, conditional on outside support
 S. S. Cairns, conditional on outside support
 N. J. Fine, conditional on outside support
 L. Gillman, Senior National Science Foundation fellowship
 E. Grosswald, Senior National Science Foundation fellowship
 M. Hirsch, conditional on National Science Foundation fellowship
 J-i. Igusa, Sloan Foundation fellowship
 J. R. Isbell, conditional on outside support
 J. Lambek, Canadian National Research Council fellowship and sabbatical pay
 P. D. Lax (I), Sloan Foundation fellowship (+ grant)
 J. F. Nash (I), Senior National Science Foundation fellowship

326.

R. Palais, National Science Foundation fellowship
R. R. Phelps, National Science Foundation fellowship
J. Poncet, own funds
F. Raymond, National Science Foundation fellowship
S. Smale, National Science Foundation fellowship
G. Takeuti (I), National Academy of Sciences award
J. T. Tate (I), Sloan Foundation fellowship
A. L. Whiteman, conditional on receiving Guggenheim Foundation fellowship
R. F. Williams, National Science Foundation fellowship
H. Widom, conditional on outside support
R. J. Wisner, National Science Foundation Science Faculty fellowship

Summary:

Grants remaining uncommitted	\$20,658.87
Salaries remaining from Air Force contract	5,900.00
Salaries remaining from proposed Ordnance contract	1,500.00

Hassler Whitney

Secretary

Minutes of a meeting of the School of Mathematics held March 25, 1959:

Present: Professors Beurling, Borel, Montgomery, Morse, Selberg, Weil, and Whitney.

1. It was voted to place Morris Hirsch, whose membership had been approved earlier, on the Air Force Office of Scientific Research contract with a salary of \$5,800 for the academic year 1959-60. [The Director will write.]

2. Rodolfo A. Ricabarra was voted membership for the first term of 1959-60 during his Rockefeller Foundation fellowship. [The Director will write.]

3. It was voted to grant Solomon Feferman membership for the academic year 1959-60 during his National Science Foundation fellowship. [The Director will write.]

4. It was voted to grant James G. Glimm membership for the academic year 1959-60 during his National Science Foundation fellowship. [The Director will write.]

5. It was voted to grant Frank J. Hahn membership for the academic year 1959-60 during his National Science Foundation fellowship. [The Director will write.]

6. It was voted to grant Marvin I. Knopp membership for the academic year 1959-60 during his National Science Foundation fellowship. [The Director will write.]

7. It was voted to grant Henry Landau membership for the academic year 1959-60 during his National Science Foundation fellowship. [The Director will write.]

8. It was voted to grant Marvin Rosenblum membership for the academic year 1959-60 during his National Science Foundation fellowship. [The Director will write.]

9. It was voted to grant Raymond Ayoub membership for the second term of 1959-60 during his American Mathematical Society grant from the Air Force. Professor Whitney will write informally to see if Ayoub can arrange to be here the second term instead of the first as he had requested.

10. Professor Weil will write informally to Jack E. Ohm recommending that he choose Johns Hopkins University rather than the Institute for Advanced Study as a place to work during the academic year 1959-60.

11. It was voted not to grant membership to Chung Nim Lee during the academic year 1959-60. [Professor Montgomery will write.]

328.

12. It was voted not to grant membership to Vladimir Devidé during the academic year 1959-60. [Professor Montgomery will write.]

13. It was voted not to grant membership to Gordon McC. Fisher during the academic year 1959-60. [Professor Montgomery will write.]

14. It was voted not to grant membership to Joseph B. Roberts during the academic year 1959-60. [Professor Montgomery will write.]

15. It was voted not to grant membership to Nobuyuki Ninomiya during the academic year 1959-60. [Professor Beurling will write.]

16. It was voted not to grant membership to Hyman Bass during the academic year 1959-60. [Professor Whitney will write.]

17. Because of the housing difficulties, many of those members recently appointed will be notified that they may not be able to secure housing at the project. A priority list (of those to be so notified) will be drawn up for office use. It is suggested that the list contain the following names: Boothby, Isbell, Ricabarra, Glimm, Hahn, Knopp, Landau, Rosenblum. [Please send to Professor Whitney your ordering of these, or other suggestions.]

18. A maximum sum of \$600 will be reserved for Reinhold Remmert to help with his traveling expenses. [Professor Borel will ascertain the situation in this regard.]

19. By letter vote before this meeting Ioan M. James was invited to spend three months of this spring as a visitor at the Institute. He has written with regret that it will be impossible for him to make arrangements to come at this time.

20. By letter vote before this meeting Paul Malliavin was invited to visit for two weeks at the beginning of the fall term, 1959-60, with an honorarium of \$100 to lecture in the Members' Seminar. He has accepted and will speak on October 5, 1959.

Hassler Whitney

Secretary

March 25, 1959
Appointments, 1959-1960

Appointments with Institute grants-in-aid:

Remaining from 1958-1959	\$35,558.87
Expected appropriation for 1959-1960	<u>75,000.00</u>
	\$110,558.87

S. Araki (also asst. trans.)	\$ 800.00	
M. F. Atiyah (I)(also reserv'n)	2,500.00	
P. Bernays (II)	4,500.00	
M. Deuring (also reserv'n)	7,500.00	
A. Haefliger (also asst. trans.)	500.00	
F. Hirzebruch	4,500.00	
E. Hlawka (I)	3,500.00	
S. Kinoshita (also asst. trans.)	800.00	
P. D. Lax (I)	500.00	
H. Morikawa	5,500.00	
A. Néron (also reserv'n)	5,500.00	
T. Ono	5,000.00	
I. Satake	5,000.00	
K. Schütte (also reserv'n)	5,500.00	
H. Toda (also reserv'n)	5,300.00	
T. van de Ven (also reserv'n)	4,500.00	
E. Vesentini (I)	2,500.00	
J.H.C. Whitehead (II)	<u>4,000.00</u>	\$67,900.00

Reservations:

M. F. Atiyah (I)	\$ 500.00	
M. Deuring	500.00	
E. B. Dynkin	6,000.00	
I. M. Gelfand	6,000.00	
J-i. Igusa	1,000.00	
O. A. Ladyzenskaja	6,000.00	
A. Néron	500.00	
R. Remmert	600.00	
K. Schütte	500.00	
H. Toda	500.00	
T. van de Ven	<u>500.00</u>	<u>22,600.00</u>
		<u>-90,500.00</u>
		\$20,058.87

Appointments with salaries from contracts:

National Science Foundation contract G-5863, 1958-60:

Remaining in salaries from 1958-59	\$ 4,600.00
Overhead from 1958-59	690.00
Salaries, 1959-60	20,300.00
Overhead (15 percent of 1959-60 salaries)	<u>3,045.00</u>
(Travel to meetings, not included in total = \$655.)	\$28,635.00

G. E. Bredon	\$5,800.00	
H. B. Helson (II)	4,800.00	
M. Kervaire, summer '59	1,200.00	
K. Kodaira (II)	7,000.00	
M. Nakaoka	<u>6,100.00</u>	\$24,900.00
Overhead (15 percent)	<u>3,735.00</u>	<u>-28,635.00</u>

330.

Air Force Office of Scientific Research, AF 49(638)-253, S/A 1, (58-433):
 (Two-year contract, 1959-61, of which the following figures are one-half.)

Salaries, 1959-60	\$35,200.00
Overhead (25 percent of salaries)	<u>8,800.00</u>

	\$44,000.00
Remaining from salaries and overhead, 1958-59	<u>500.00</u>

L. de Branges	\$5,400.00		
L. Gårding (I)	6,000.00		
B. Grünbaum	6,000.00		
M. Lees	5,800.00		
M. Hirsch	5,800.00		
R. Remmert	<u>6,500.00</u>	\$35,500.00	
Overhead (25 percent of salaries)	<u>8,875.00</u>	<u>-44,375.00</u>	
		\$ 125.00	

Office of Ordnance Research contract, ORD-2884:

Salaries, 1959-60	\$16,000.00
Overhead (25 percent of salaries)	<u>4,000.00</u>
	\$20,000.00

A. Gleason (II)	\$6,500.00		
G. Temple (I)	5,000.00		
F. Wolf (I)	<u>3,000.00</u>	\$14,500.00	
Overhead (25 percent)	<u>3,625.00</u>	<u>-18,125.00</u>	
		\$ 1,875.00	

Assistant funds:

S. Araki (Borel transfer to grants)(+ grant)	\$4,500.00
U. Christian (Veblen)	5,000.00
A. Haeffliger (Whitney transfer to grants)(+ grant)	4,500.00
H. Huber (Weil transfer to grants)(possible additional grant)	4,500.00
W. Huebsch (Morse)	5,000.00
S. Kinoshita (Montgomery transfer to grants)(+ grant)	4,500.00
D. Kurepa (I) (Gödel transfer to grants)	3,500.00

Appointments with other sources of funds:

W. Ambrose, conditional on outside support
 E. Asplund, Swedish State Council for Technical Research grant
 R. Ayoub (II), Air Force grant by American Mathematical Society
 W. M. Boothby, conditional on outside support
 S. S. Cairns, outside support
 S. Feferman, National Science Foundation postdoctoral fellowship
 N. J. Fine, conditional on outside support
 L. Gillman, Senior National Science Foundation fellowship
 J. G. Glimm, National Science Foundation postdoctoral fellowship
 E. Grosswald, Senior National Science Foundation fellowship
 F. J. Hahn, National Science Foundation postdoctoral fellowship
 J-i. Igusa, Sloan Foundation fellowship
 J. R. Isbell, conditional on outside support
 M. I. Knopp, National Science Foundation postdoctoral fellowship

331.

J. Lambek, Canadian National Research Council fellowship and sabbatical pay
H. Landau, National Science Foundation postdoctoral fellowship
P. D. Lax (I), Sloan Foundation fellowship (+ grant)
J. F. Nash (I), Senior National Science Foundation fellowship
R. Palais, National Science Foundation fellowship
R. R. Phelps, National Science Foundation fellowship
J. Poncet, own funds
F. Raymond, National Science Foundation postdoctoral fellowship
R. A. Ricabarra (I), Rockefeller Foundation fellowship
M. Rosenblum, National Science Foundation postdoctoral fellowship
S. Smale, National Science Foundation postdoctoral fellowship
G. Takeuti (I), National Academy of Sciences award
J. T. Tate (I), Sloan Foundation fellowship
A. L. Whiteman, conditional on receiving Guggenheim Foundation fellowship
R. F. Williams, National Science Foundation fellowship
H. Widom, National Science Foundation postdoctoral fellowship
R. J. Wisner, National Science Foundation Science Faculty fellowship

Summary:

Grants remaining uncommitted	\$20,058.87
Salaries remaining from Air Force contract	100.00
Salaries remaining from Ordnance contract	1,500.00

Hassler Whitney
Secretary

332.

Minutes of a meeting of the School of Mathematics held April 21, 1959:

Present: Professors Beurling, Borel, Gödel, Montgomery, Morse, Oppenheimer, Selberg, and Whitney.

1. The sum of \$500 will be reserved from the grants fund towards the travelling expenses of Friedrich Hirzebruch, in case this is needed. [Professor Borel will write informally.]

2. Albert Whiteman did not receive the Guggenheim fellowship. No action was taken. [Professor Selberg will write him informally, suggesting that he apply again a later year.]

3. W. M. Boothby was dropped from the list. He does not need to be notified.

4. John Isbell was dropped from the list. [Professor Montgomery will write.]

5. Mrs. Anne C. Morel was granted membership for the calendar year 1960. A normal grant for this period would be \$5000. [Professor Gödel will write informally, to see if this is satisfactory with her. The housing problem for the first term of 59-60 will be pointed out to her.]

6. Leonard Gross was voted membership for the academic year 1959-60 during his National Science Foundation fellowship. [The Director will write.]

7. Thomas E. Stewart was voted membership for the academic year 1959-60 during his National Science Foundation fellowship. [The Director will write.]

8. Seth L. Warner was voted membership for the academic year 1959-60 during his National Science Foundation fellowship. [The Director will write.]

9. It was voted not to grant membership in 1959-60 to Ronald K. Getoor during the tenure of his National Science Foundation fellowship. This was in part because of the serious crowding, the lateness of his application, and the fact the he has recently been in Princeton for two years. [Professor Whitney will write.]

333.

10. It was voted not to grant Jun-ichi Hano membership during the academic year 1959-60. [Professor Borel will write.]

11. Paul J. Cohen was granted membership for the academic year 1959-60, with a grant of \$4,500 to be transferred from Professor Beurling's assistant fund. [Professor Beurling will write informally.]

12. Ernst Witt was granted membership for the academic year 1959-60, or a term of that year. A grant of \$4,500 is available from the assistant fund of Professor Weil. [Professor Weil will write informally, to ascertain the situation.]

13. The School of Mathematics is interested in having I. I. Piatetzky-Shapiro at some later date. Professor Borel will prepare a brief memorandum and the Director will notify the proper authorities in the State Department of our probable interest in having him.

14. A maximum sum of \$1,000 will be reserved in case it seems wise to aid Nathan Fine in his stay here in the academic year 1959-60. [Professor Selberg will confer with him.]

Addenda

1. J.C.E. Dekker has been invited to spend the summer of 1959 at the Institute as a visitor.

2. Nathan Fine has been offered a supplemental grant of \$1,000 for the academic year 1959-60.

Addenda to the minutes of March 25

1. Nobuyuki Ninomiya was invited to spend a few days here during 1959-60 on his way from France to Japan. An honorarium of \$100 is being reserved for him.

2. The sum of \$400 will be given to Reinhold Remmert to aid in his travelling expenses. This will come out of the Air Force Office of Scientific Research contract.

Hassler Whitney

Secretary

334.

Minutes of a meeting of the School of Mathematics held May 5, 1959:

Present: Professors Beurling, Borel, Gödel, Montgomery, Oppenheimer, Selberg, and Whitney.

1. Albert L. Whiteman was voted a grant of \$4,500 for the academic year 1959-60 to supplement his sabbatical pay. Membership had been voted conditional on his receiving the Guggenheim Foundation fellowship for which he had applied. He did not receive the Guggenheim fellowship. [The Director will write.]

Hassler Whitney

Secretary

335.

May 5, 1959
Appointments, 1959-1960

Appointments with Institute grants-in-aid:

Remaining from 1958-1959	\$35,558.87
Appropriation for 1959-1960	<u>75,000.00</u>
	\$110,558.87

S. Araki (also asst. trans.)	\$ 800.00	
M. F. Atiyah (I) (also reserv'n)	2,500.00	
P. Bernays (II)	4,500.00	
M. Deuring (also reserv'n)	7,500.00	
N. J. Fine	1,000.00	
A. Haeffliger (also asst. trans.)	1,300.00	
F. Hirzebruch	4,500.00	
E. Hlawka (I)	3,500.00	
S. Kinoshita (also asst. trans.)	800.00	
P. D. Lax (I)	500.00	
A. C. Morel (calendar 1960)	5,000.00	
H. Morikawa	5,500.00	
A. Néron (also reserv'n)	5,500.00	
T. Ono	5,000.00	
I. Satake	5,000.00	
K. Schütte (also reserv'n)	5,500.00	
H. Toda (also reserv'n)	5,300.00	
T. van de Ven (also reserv'n)	4,500.00	
E. Vesentini (I)	2,500.00	
J.H.C. Whitehead (II)	4,000.00	
A. L. Whiteman	<u>4,500.00</u>	\$79,200.00

Reservations:

M. F. Atiyah (I)	\$ 500.00	
M. Deuring	500.00	
E. B. Dynkin	6,000.00	
I. M. Gelfand	6,000.00	
F. Hirzebruch	500.00	
J-i. Igusa	1,000.00	
O. A. Ladyzenskaja	6,000.00	
A. Néron	500.00	
K. Schütte	500.00	
H. Toda	500.00	
T. van de Ven	<u>500.00</u>	<u>22,500.00</u>
		-101,700.00
		\$ 8,858.87

Assistant funds:

S. Araki (Borel transfer to grants)(+ grant)	\$4,500.00
K. Aubert (Selberg)	4,300.00
U. Christian (Veblen)	5,000.00
P. J. Cohen (Beurling transfer to grants)	4,500.00
A. Haeffliger (Whitney transfer to grants)(+ grant)	3,700.00
W. Huebsch (Morse)	5,000.00
S. Kinoshita (Montgomery transfer to grants)(+ grant)	4,500.00
D. Kurepa (I) (Gödel transfer to grants)	3,500.00
H. S. Leonard (Gödel transfer to grants)	1,000.00
E. Witt (Weil transfer to grants)	4,500.00

10/27/59
 HAEFLIGER'S GRANT SOURCES
 CHANGED IN DIVISION OF
 TOTAL AMOUNT IN
 MINUTES' BUDGET ONLY.
 (DONE BY H. WHITNEY
 TO CUT DOWN ON
 USE OF ASST. FUND.
 LATER CHANGED
 BACK.)

336.

Appointments with salaries from contracts:

National Science Foundation contract G-5863, 1958-60:

Remaining in salaries from 1958-59			\$ 4,600.00
Overhead from 1958-59			690.00
Salaries, 1959-60			20,300.00
Overhead (15 percent of 1959-60 salaries)			<u>3,045.00</u>
(Travel to meetings, not included in total = \$655.)			\$28,635.00
G. E. Bredon	\$5,800.00		
H. B. Helson (II)	4,800.00		
M. Kervaire, summer '59	1,200.00		
K. Kodaira (II)	7,000.00		
M. Nakaoka	<u>6,100.00</u>	\$24,900.00	
Overhead (15 percent)		<u>3,735.00</u>	<u>-28,635.00</u>
			00

Air Force Office of Scientific Research, AF 49(638)-253, S/A 1, (58-433):
 (Two-year contract, 1959-61)

Salaries, 1959-61			\$70,400.00
Overhead (25 percent of salaries)			17,600.00
Remaining from salaries and overhead, 1958-59			<u>500.00</u>
			\$88,500.00
L. de Branges	\$5,400.00		
L. Gårding (I)	6,000.00		
B. Grünbaum	6,000.00		
M. Lees	5,800.00		
M. Hirsch	5,800.00		
R. Remmert	<u>6,900.00</u>	\$35,900.00	
Overhead (25 percent of salaries)		<u>8,975.00</u>	<u>-44,875.00</u>
Salaries and overhead, 1960-61			\$43,625.00

Office of Ordnance Research contract, ORD-2884:

Salaries, 1959-60			\$16,000.00
Overhead (25 percent of salaries)			<u>4,000.00</u>
			\$20,000.00
A. Gleason (II)	\$6,500.00		
G. Temple (I)	5,000.00		
F. Wolf (I)	<u>3,000.00</u>	\$14,500.00	
Overhead (25 percent)		<u>3,625.00</u>	<u>-18,125.00</u>
			\$ 1,875.00

cdh

Appointments with other sources of funds:

W. Ambrose, conditional on outside support
E. Asplund, Swedish State Council for Technical Research grant
R. Ayoub (II), Air Force grant by American Mathematical Society
S. S. Cairns, National Science Foundation grant through University of Illinois
S. Feferman, National Science Foundation postdoctoral fellowship
N. J. Fine, AFOSR contract through Univ. of Pennsylvania(+ supplemental grant)
L. Gillman, Senior National Science Foundation fellowship
J. G. Glimm, National Science Foundation postdoctoral fellowship
L. Gross, National Science Foundation postdoctoral fellowship
E. Grosswald, Senior National Science Foundation fellowship
F. J. Hahn, National Science Foundation postdoctoral fellowship
J-i. Igusa, Sloan Foundation fellowship
M. I. Knopp, National Science Foundation postdoctoral fellowship
J. Lambek, Canadian National Research Council fellowship + sabbatical pay
H. Landau, National Science Foundation postdoctoral fellowship
P. D. Lax (I), Sloan Foundation fellowship (+ grant)
J. F. Nash (I), Senior National Science Foundation fellowship
R. Palais, National Science Foundation postdoctoral fellowship
R. R. Phelps, National Science Foundation postdoctoral fellowship
J. Poncet, own funds
F. Raymond, National Science Foundation postdoctoral fellowship
R. A. Ricabarra (I), Rockefeller Foundation fellowship
M. Rosenblum, National Science Foundation postdoctoral fellowship
S. Smale, National Science Foundation postdoctoral fellowship
T. E. Stewart, National Science Foundation postdoctoral fellowship
G. Takeuti (I), National Academy of Sciences award
J. T. Tate (I), Sloan Foundation fellowship
S. L. Warner, National Science Foundation postdoctoral fellowship
R. F. Williams, National Science Foundation fellowship
H. Widom, National Science Foundation postdoctoral fellowship
R. J. Wisner, National Science Foundation Science Faculty fellowship

Summary:

Grants remaining uncommitted	\$8,858.87
Salaries remaining from Office of Ordnance Research contract	1,500.00

Hassler Whitney

Secretary

Minutes of a meeting of the School of Mathematics held October 7, 1959:

Present: Professors Beurling, Borel, Gödel, Montgomery, Morse, Oppenheimer, Selberg, Weil, and Whitney.

1. Due to a salary increase at Harvard, it was voted to raise Andrew Gleason's salary from the Office of Ordnance Research contract for the second term of 1959-60 to \$7,500. [The Director will write.]

2. It was voted to increase the grant to André Néron by \$2,500, this sum to come from Professor Weil's assistant fund and be transferred to grants-in-aid. Dr. Néron's total grant will be \$8,000. [The Director will write.]

3. It was voted to increase the grant to Max Deuring by \$500, this sum to be transferred from Professor Weil's assistant fund to grants-in-aid. Professor Deuring's total grant will be \$8,000. [The Director will write.]

4. Membership was voted to Gaisi Takeuti for the second term of 1959-60 during the tenure of his National Academy of Sciences award. [The Director will write.]

5. Membership was voted to S. Łojasiewicz for the second term of 1959-60. Professor Whitney will determine a proper grant through correspondence.

6. Oscar Zariski was voted membership for the first term of 1960-61. He expects to receive funds through an Air Force contract. [The Director will write.]

7. Teruhisa Matsusaka was voted membership for the academic year 1960-61. He has a grant of \$5,000 from the Guggenheim Foundation and expects to obtain half of his salary from Northwestern University. [The Director will write.]

8. Hans Samelson was voted membership for the academic year 1960-61. He hopes to obtain funds from other sources but if he has trouble in obtaining funds for his support it was agreed that we would see if we could help. [The Director will so notify him.]

9. It was voted to offer a grant of \$10,000 to Carl L. Siegel for his membership during the academic year 1960-61. [The Director will write.] The Director will inquire if the Trustees would care to take this sum from a special source.

339.

10. Costake Teleman was voted membership during the academic year 1960-61. Professor Weil will have his assistant fund transferred to grants for this purpose. Professor Weil will correspond to determine the proper amount of grant.

11. In the spring a faculty committee, consisting of Professors Cherniss, Gödel, and Whitney, considered the application of Henry S. Leonard for membership in the Institute. Since Professor Gödel showed a particular interest in some of Leonard's work, membership was granted through the Director's Office. At the present meeting of the School it was voted to accept Professor Leonard in the School of Mathematics.

12. Professor Weil will correspond with Heinz Huber as to amount of a grant needed during 1960-61 in case membership is voted.

13. Professor Weil will correspond with Ernst Witt as to amount of a grant needed during 1960-61 in case membership is voted.

14. Membership for D. P. Banerjee for 1960-61 was declined.
[Professor Whitney will write.]

15. Membership for S. C. Saxena for 1960-61 was declined.
[Professor Whitney will write.]

Hassler Whitney

Secretary

Addenda

1. Paul J. Cohen's grant was raised by \$1,000, making his total grant \$5,500 with \$4,500 of it being transferred from Professor Beurling's assistant fund.

2. Anne C. Morel was invited to membership for the academic year 1959-60 when this was found to be preferable for her over the calendar year of 1960.

3. Word has been received that neither I. M. Gelfand nor O. A. Ladyzenskaja can accept invitations to the Institute.

340.

October 7, 1959
Appointments, 1959-1960

Appointments with Institute grants-in-aid:

Remaining from 1958-1959	\$35,558.87
Appropriation for 1959-1960	<u>75,000.00</u>

\$110,558.87

S. Araki (also asst. trans.)	\$ 800.00	
M. F. Atiyah (I) (also reserv'n)	2,500.00	
P. Bernays	4,500.00	
P. J. Cohen (also asst. trans.)	1,000.00	
M. Deuring (also asst. trans.)	7,500.00	
N. J. Fine (also AFC at Penn)	1,000.00	
A. Haefliger (also asst. trans.)	1,300.00	
F. Hirzebruch	4,500.00	
E. Hlawka (I)	3,500.00	
S. Kinoshita (also asst. trans.)	800.00	
P. D. Lax (I) (also Sloan)	500.00	
S. Łojasiewicz (II)	-----	
A. C. Morel	5,000.00	
H. Morikawa	5,500.00	
A. Néron (also asst. trans.)	5,500.00	
T. Ono	5,000.00	
I. Satake	5,000.00	
K. Schüttte	5,500.00	
H. Toda	5,300.00	
T. van de Ven	4,500.00	
E. Vesentini (I)	2,500.00	
J.H.C. Whitehead (II)	4,000.00	
A. L. Whiteman (also sabbat'l)	<u>4,500.00</u>	\$80,200.00

Reservations:

M. F. Atiyah (I)	\$ 500.00		
J-i. Igusa	<u>1,000.00</u>	<u>1,500.00</u>	<u>81,700.00</u>
			\$28,858.87

Assistant funds:

\$63,000.00

S. Araki (Borel transfer to grants)(+ grant)	\$4,500.00
K. Aubert (Selberg)	4,300.00
U. Christian (Veblen)	5,000.00
P. J. Cohen (Beurling transfer to grants)(+ grant)	4,500.00
M. Deuring (Weil transfer to grants)(+ grant)	500.00
A. Haefliger (Whitney transfer to grants)(+ grant)	3,700.00
W. Huebsch (Morse)	5,000.00
S. Kinoshita (Montgomery transfer to grants)(+ grant)	4,500.00
D. Kurepa (I) (Gödel transfer to grants)	3,500.00
H. S. Leonard (II) (Gödel transfer to grants)	1,000.00
A. Néron (Weil transfer to grants)(+ grant)	2,500.00
K. Osawa (I) (Strömberg)	3,500.00

341.

Appointments with salaries from contracts:

National Science Foundation contract G-5863, 1958-60:

Remaining in salaries from 1958-59			\$ 4,600.00
Overhead from 1958-59			690.00
Salaries, 1959-60			20,300.00
Overhead (15 percent of 1959-60 salaries)			<u>3,045.00</u>

(Travel to meetings, not included in total = \$655.)			\$28,635.00
--	--	--	-------------

G. E. Bredon	\$5,800.00		
H. B. Helson (II)	4,800.00		
M. Kervaire, summer '59	1,200.00		
K. Kodaira (II)	7,000.00		
M. Nakaoka	<u>6,100.00</u>	\$24,900.00	
Overhead (15 percent)		<u>3,735.00</u>	-28,635.00

00

Air Force Office of Scientific Research, AF 49(638)-253, S/A 1, (58-433):
 (Two-year contract, 1959-61)

Salaries, 1959-61			\$70,400.00
Overhead (25 percent of salaries)			17,600.00
Remaining from salaries and overhead, 1958-59			<u>500.00</u>

\$88,500.00

L. de Branges	\$5,400.00		
L. Garding (I)	6,000.00		
B. Grünbaum	6,000.00		
M. Lees	5,800.00		
M. Hirsch	5,800.00		
R. Remmert	<u>6,900.00</u>	\$35,900.00	
Overhead (25 percent of salaries)		<u>8,975.00</u>	-44,875.00
Salaries and overhead, 1960-61			\$43,625.00

Office of Ordnance Research contract, ORD-2884:

Salaries, 1959-60			\$16,000.00
Overhead (25 percent of salaries)			<u>4,000.00</u>

\$20,000.00

A. Gleason (II)	\$7,500.00		
G. Temple (I)	<u>5,000.00</u>	\$12,500.00	
Overhead (25 percent)		<u>3,125.00</u>	15,625.00
			\$4,375.00

342.

Appointments with other sources of funds:

- * W. Ambrose, Air Force contract with M.I.T. and sabbatical pay
- E. Asplund, Swedish State Council for Technical Research grant
- R. Ayoub (II), Air Force grant by American Mathematical Society
- S. S. Cairns, National Science Foundation grant through University of Illinois
- S. Feferman, National Science Foundation postdoctoral fellowship
- N. J. Fine, AFOSR contract through Univ. of Pa. (+ supplemental grant)
- L. Gillman, Senior National Science Foundation fellowship
- J. G. Glimm, National Science Foundation postdoctoral fellowship
- L. Gross, National Science Foundation postdoctoral fellowship
- E. Grosswald, Senior National Science Foundation fellowship
- F. J. Hahn, National Science Foundation postdoctoral fellowship
- J-i. Igusa, Sloan Foundation fellowship (+ reservation)
- M. I. Knopp, National Science Foundation postdoctoral fellowship
- J. Lambek, Canada Council grant + sabbatical pay
- H. Landau, National Science Foundation postdoctoral fellowship
- P. D. Lax (I), Sloan Foundation fellowship (+ grant)
- * S. E. Asch, Public Health Research fellowship
- R. Palais, National Science Foundation postdoctoral fellowship
- R. R. Phelps, National Science Foundation postdoctoral fellowship
- J. Poncet, Swiss Federal Institute of Technology fellowship
- F. Raymond, National Science Foundation postdoctoral fellowship
- R. A. Ricabarra (I), Rockefeller Foundation fellowship
- M. Rosenblum, National Science Foundation postdoctoral fellowship
- S. Smale, National Science Foundation postdoctoral fellowship
- T. E. Stewart, National Science Foundation postdoctoral fellowship
- G. Takeuti, National Academy of Sciences award
- J. T. Tate (I), Sloan Foundation fellowship
- S. L. Warner, National Science Foundation postdoctoral fellowship
- A. L. Whiteman, sabbatical pay (+ grant)
- R. F. Williams, National Science Foundation fellowship
- H. Widom, National Science Foundation postdoctoral fellowship
- R. J. Wisner, National Science Foundation Science Faculty fellowship

Summary:

Grants remaining uncommitted	\$28,358.87	
Salaries remaining from Office of Ordnance Research contract	3,500.00	CSH

Hassler Whitney

Secretary

343.

Minutes of a meeting of the School of Mathematics held October 28, 1959:

Present: Professors Beurling, Borel, Gödel, Montgomery, Oppenheimer, Selberg, Weil, and Whitney.

1. A grant of \$3,500 was voted to S. Łojasiewicz for the second term of 1959-60. After the meeting this was changed to a salary of \$4,000 under the Office of Ordnance Research contract. [The Director will write.]

2. Ernst Witt was voted membership for the academic year 1960-61 with a grant of \$4,500. [Professor Weil will write informally; the Director formally.]

3. It was voted to increase the grant to F. Hirzebruch for the current year, 1959-60, by \$500, making his total grant \$5,000. [The Director will write.]

4. André Haeffliger was voted membership for the academic year 1960-61 with a grant of \$5,300 of which \$4,500 will be transferred from Professor Whitney's assistant fund. [The Director will write.]

5. Jean Koszul was voted membership for the academic year 1960-61 with a grant of \$6,000. [Professor Weil will write informally; the Director formally.]

6. Lars Hörmander was voted membership for the academic year 1960-61 with a salary from a contract tentatively set at \$6,000, if he remains for both terms. [Professor Beurling will write.]

7. J. A. Green was voted membership for the second term of 1960-61 with a grant of \$2,500. A reservation of an additional \$500 will be made for him in case he does not obtain a Fulbright grant for travel. [The Director will write.]

8. Hans Freudenthal will be approached by Professor Montgomery in regard to his interest in membership during 1960-61.

9. Edwin Hewitt was voted membership for 1960-61 conditional on his receiving a National Science Foundation fellowship. [Professor Whitney will write.]

10. It was voted not to grant S. Kuroda membership during 1960-61. [Professor Montgomery will write.]

Hassler Whitney

Secretary

343a.

Since the meeting on October 7, 1959, the following action was taken:

1. André Haefliger's grant was raised to total \$5,300 for the current academic year, 1959-60, because of the increase in his family. Of this grant \$4,500 was transferred from Professor Whitney's assistant fund, and \$800 was to come from grants-in-aid.
2. It was voted to allocate \$300 of the Visitors Fund to be used, if needed, by the University-Institute Mathematics Club during the academic year 1959-60.

Corrected 344.

October 28, 1959
Appointments, 1959-1960

Appointments with Institute grants-in-aid:

Remaining from 1958-1959			\$35,558.87
Appropriation for 1959-1960			<u>75,000.00</u>
			\$110,558.87
S. Araki (also asst. trans.)	\$ 800.00		
M. F. Atiyah (I)	2,500.00		
P. Bernays	4,500.00		
P. J. Cohen (also asst. trans.)	1,000.00		
M. Deuring (also asst. trans.)	7,500.00		
S. Feferman (also NSFF)	1,000.00		
N. J. Fine (also AFC at Penn)	1,000.00		
A. Haefliger (also asst. trans.)	800.00		
F. Hirzebruch	5,000.00		
E. Hlawka (I)	3,500.00		
S. Kinoshita (also asst. trans.)	800.00		
P. D. Lax (I) (also Sloan)	500.00		
A. C. Morel	5,000.00		
H. Morikawa	5,500.00		
A. Néron (also asst. trans.)	5,500.00		
T. Ono	5,000.00		
I. Satake	5,000.00		
K. Schüttte	5,500.00		
H. Toda	5,300.00		
T. van de Ven	4,500.00		
E. Vesentini (I)	2,500.00		
J.H.C. Whitehead (II)	4,000.00		
A. L. Whiteman (also sabbat'l)	<u>4,500.00</u>	\$81,200.00	<u>81,200.00</u>
			\$29,358.87

Assistant funds:

S. Araki (Borel transfer to grants)(+ grant)	\$4,500.00
K. Aubert (Selberg)	4,300.00
U. Christian (Veblen)	5,000.00
U. Christian (Weil transfer to grants to aid in medical bills)	1,500.00
P. J. Cohen (Beurling transfer to grants)(+ grant)	4,500.00
M. Deuring (Weil transfer to grants)(+ grant)	500.00
A. Haefliger (Whitney transfer to grants)(+ grant)	4,500.00
W. Huebsch (Morse)	5,000.00
S. Kinoshita (Montgomery transfer to grants)(+ grant)	4,500.00
D. Kurepa (I) (Gödel transfer to grants)	3,500.00
H. S. Leonard (II) (Gödel transfer to grants)	1,000.00
A. Néron (Weil transfer to grants)(+ grant)	2,500.00
K. Osawa (I) (Strömberg)	3,500.00

345.

Appointments with salaries from contracts:

National Science Foundation contract G-5863, 1958-60:

Remaining in salaries from 1958-59		\$ 4,600.00
Overhead from 1958-59		690.00
Salaries, 1959-60		20,300.00
Overhead (15 percent of 1959-60 salaries)		<u>3,045.00</u>
(Travel to meetings, not included in total = \$655.)		\$28,635.00
G. E. Bredon	\$5,800.00	
H. B. Helson (II)	4,800.00	
M. Kervaire, summer '59	1,200.00	
K. Kodaira (II)	7,000.00	
M. Nakaoka	<u>6,100.00</u>	\$24,900.00
Overhead (15 percent)	<u>3,735.00</u>	<u>-28,635.00</u>
		00

Air Force Office of Scientific Research, AF 49(638)-253, S/A 1, (58-433):
 (Two-year contract, 1959-61)

Salaries, 1959-61		\$70,400.00
Overhead (25 percent of salaries)		17,600.00
Remaining from salaries and overhead, 1958-59		<u>500.00</u>
		\$88,500.00
L. de Branges	\$5,400.00	
L. Gårding (I)	6,000.00	
B. Grünbaum	6,000.00	
M. Lees	5,800.00	
M. Hirsch	5,800.00	
R. Remmert	<u>6,900.00</u>	\$35,900.00
Overhead (25 percent of salaries)	8,975.00	<u>-44,875.00</u>
Salaries and overhead, 1960-61		\$43,625.00

Office of Ordnance Research contract, ORD-2884:

Salaries, 1959-61		\$32,000.00
Overhead (25 percent of salaries)		<u>8,000.00</u>
		\$40,000.00
A. Gleason (II)	\$7,500.00	
S. Łojasiewicz (II)	4,000.00	
G. Temple (I)	<u>5,000.00</u>	\$16,500.00
Overhead (25 percent)	<u>4,125.00</u>	<u>20,625.00</u>
Salaries and overhead, 1960-61		\$19,375.00

Appointments with other sources of funds:

[No changes since list on page 342 of these minutes.]

Corrected 346.

October 28, 1959
Appointments, 1960-1961

Appointments with Institute grants-in-aid:

Remaining from 1959-60	\$28,858.87	
Appropriation expected for 1960-61	<u>75,000.00</u>	
	\$103,858.87	

CDh

J. A. Green (II)	\$2,500.00	
A. Haeffliger (also asst. trans.)	800.00	
J. Koszul	6,000.00	
C. L. Siegel	10,000.00	
E. Witt	<u>4,500.00</u>	\$23,800.00

Reservations:

J. A. Green (II)	\$ 500.00	<u>500.00</u>	<u>24,300.00</u>
------------------	-----------	---------------	------------------

~~\$28,858.87~~

\$80,058.87

CDh

Assistant funds:

A. Haeffliger (Whitney transfer to grants)(+ grant)	\$4,500.00
---	------------

Appointments with salaries from contracts:

National Science Foundation contract proposed

Salaries	\$24,000.00
Overhead (15 percent of salaries)	<u>3,600.00</u>
	\$27,600.00

Air Force Office of Scientific Research, AF 49(638)-253, S/A 1, (58-433):
(Two-year contract, 1959-61)

Salaries remaining from 1959-60	\$34,900.00
Overhead (25 percent of salaries)	<u>8,725.00</u>
	\$43,625.00

Office of Ordnance Research contract, ORD-2884, Mod. 1:

Salaries	\$15,500.00
Overhead (25 percent of salaries)	<u>3,875.00</u>
	\$19,375.00

Appointments with other sources of funds:

E. Hewitt (conditional on receiving National Science Foundation fellowship)
T. Matsusaka, Guggenheim fellowship and sabbatical pay from Northwestern
H. Samelson (applying for outside funds)
O. Zariski (I), Air Force contract at Harvard

Funds to be decided:

L. Hörmander
C. Teleman

347.

Minutes of a meeting of the School of Mathematics held November 25, 1959:

Present: Professors Beurling, Borel, Gödel, Montgomery, Morse, Selberg, Weil, Whitney.

1. It was voted to invite Professor Karol Borsuk for a short visit in January 1960 to give a lecture with an honorarium of \$100. [Professor Morse will write.]

2. It was voted not to approve the application of W. A. Pierce for the second term of 1959-60. [Professor Whitney will write.]

3. Lars Gårding was voted membership for the first term of 1960-61 with a salary of \$6,000 from one of our contracts. It is expected that this membership will be either taken up with, or reported to, the full faculty. [The Director will notify.]

4. Heinz Huber was voted membership for the academic year 1960-61 with a salary of \$7,000 under a contract. [The Director will notify.]

5. Stefan Rolewicz was not granted membership for 1960-61. [Professor Whitney will write.]

6. Paul Malliavin was voted membership for the academic year 1960-61 with a grant of \$5,000. [The Director will write.]

7. Lars Hörmander was voted membership for the academic year 1960-61 with a salary of \$8,000 from a contract. [The Director will write.]

8. Mieo Nishi was voted membership for the academic year 1960-61 with a grant of \$5,300. [The Director will write.]

9. Hans Freudenthal was voted membership for the academic year 1960-61. [Professor Whitney will write informally.]

10. C. T. C. Wall was voted membership for the academic year 1960-61. The sum of \$5,000 will be reserved from grants-in-aid in case he needs funds. [Professor Whitney will write informally.]

11. A. H. Stone was not granted membership for 1960-61. [Professor Whitney will write.]

12. Karl Heinrich Hofmann was not granted membership for 1960-61. [Professor Whitney will write.]

At this point Professor Weil left the meeting.

13. John A. Ernest was voted membership for the academic year 1960-61 for the duration of his National Science Foundation fellowship. [The Director will notify.]

348.

14. C. E. Watts was voted membership for the academic year 1960-61 for the duration of his National Science Foundation fellowship. [The Director will notify.]

15. Allen Devinatz was voted membership for the academic year 1960-61 conditional on his obtaining funds. [The Director will write.]

16. Paul Cohen was voted membership for the academic year 1960-61 with a salary of \$6,800 from a contract. [The Director will notify.]

17. Shin'ichi Kinoshita was voted membership for the academic year 1960-61 with a grant of \$5,300 of which \$4,500 will be transferred to the grants fund from Professor Montgomery's assistant fund. [The Director will write.]

Hassler Whitney

Secretary

349.

November 25, 1959
Appointments, 1960-1961

Appointments with Institute grants-in-aid:

Remaining from 1959-60	\$28,858.87	
Appropriation expected for 1960-61	<u>75,000.00</u>	
	\$103,858.87	

cdh

J. A. Green (II) (+ reserv'n)	\$2,500.00	
A. Haefliger (also asst. trans.)	800.00	
S'i. Kinoshita (also asst. trans.)	800.00	
J. Koszul	6,000.00	
P. Malliavin	5,000.00	
M. Nishi	5,300.00	
C. L. Siegel	10,000.00	
E. Witt	<u>4,500.00</u>	\$34,900.00

Reservations:

J. A. Green (II) (+ grant)	\$ 500.00		
C. T. C. Wall	<u>5,000.00</u>	<u>5,500.00</u>	<u>40,400.00</u>

\$63,458.87

\$63,958.87 cdh

Assistant funds:

A. Haefliger (Whitney transfer to grants)(+ grant)	\$4,500.00
S'i. Kinoshita (Montgomery transfer to grants)(+ grant)	<u>4,500.00</u>

Appointments with salaries from contracts:

National Science Foundation contract proposed

Salaries	\$24,000.00
Overhead (15 percent of salaries)	<u>3,600.00</u>
	\$27,600.00

Air Force Office of Scientific Research, AF 49(638)-253, S/A 1, (58-433):
 (Two-year contract, 1959-61)

Salaries remaining from 1959-60	\$34,900.00
Overhead (25 percent of salaries)	<u>8,725.00</u>
	\$43,625.00

Office of Ordnance Research contract, ORD-2884, Mod. 1:

Salaries	\$15,500.00
Overhead (25 percent of salaries)	<u>3,875.00</u>
	\$19,375.00

Assignment to contracts to be decided:

P. Cohen	\$6,800.00
L. Garding (I)	6,000.00
L. Hörmander	8,000.00
H. Huber	<u>7,000.00</u>

Funds to be decided:

C. Teleman

350.

Appointments with other sources of funds:

- A. Devinatz (conditional on his obtaining funds)
- J. A. Ernest, National Science Foundation fellowship
- H. Freudenthal (funds not known)
- E. Hewitt (conditional on his receiving National Science Foundation fellowship)
- T. Matsusaka, Guggenheim fellowship and sabbatical pay from Northwestern
- H. Samelson (applying for outside funds)
- C. E. Watts, National Science Foundation fellowship
- O. Zariski (I), Air Force contract at Harvard

351.

Minutes of a meeting of the School of Mathematics held December 16, 1959:

Present: Professors Beurling, Borel, Montgomery, Morse, Oppenheimer, Selberg, Weil, and Whitney.

1. Oscar Goldman was voted membership for the academic year 1960-61 during his National Science Foundation Faculty Fellowship. [The Director will write.]

2. David Buchsbaum was voted membership for the academic year 1960-61 during his National Science Foundation Fellowship. [The Director will write.]

3. Takashi Ono was voted membership for the academic year 1960-61 with a grant-in-aid of \$5,000. [The Director will write.]

4. Hiroshi Toda was voted membership for the academic year 1960-61 with a grant-in-aid of \$5,300. [The Director will write.]

5. Ton van de Ven was voted membership for the academic year 1960-61 with a grant-in-aid of \$4,500. [The Director will write.]

6. It was voted to invite René Thom to spend a term at the Institute with financial aid being provided by the Institute. It is believed that he wishes to be here in the fall term of 1961-62. [Professor Morse will correspond with him to ascertain the exact term and his financial needs.]

7. Jan W. Jaworowski was voted membership for the academic year 1960-61. The Director will look into possible sources of outside funds for him. The sum of \$5,000 will be reserved from grants. [The Director will write.]

8. Carlos Lyra was voted membership for the academic year 1960-61 conditional on his obtaining funds. [The Director will write.]

9. Seymour Sherman was voted membership for the academic year 1960-61 conditional on his obtaining funds. [The Director will write.]

10. Ernest Michael was voted membership for the academic year 1960-61 conditional on his receiving the National Science Foundation Fellowship for which he has applied. [The Director will write.]

Hassler Whitney

Secretary

352.

December 16, 1959
Appointments, 1960-1961

Appointments with Institute grants-in-aid:

Remaining from 1959-60	\$29,358.87
Appropriation expected for 1960-61	<u>75,000.00</u>
	\$104,358.87

J. A. Green (II) (+ reserv'n)	\$2,500.00	
A. Haeffliger (also asst. trans.)	800.00	
S'i. Kinoshita (also asst. trans.)	800.00	
J. Koszul	6,000.00	
P. Malliavin	5,000.00	
M. Nishi	5,300.00	
T. Ono	5,000.00	
C. L. Siegel	10,000.00	
H. Toda	5,300.00	
T. van de Ven	4,500.00	
E. Witt	<u>4,500.00</u>	\$49,700.00

Reservations:

J. A. Green (II) (+ grant)	\$ 500.00	
J. Jaworowski	5,000.00	
C. T. C. Wall	<u>5,000.00</u>	<u>10,500.00</u>
		60,200.00
		\$44,158.87

Assistant funds:

U. Christian (Veblen)	\$5,000.00
A. Haeffliger (Whitney transfer to grants)(+ grant)	4,500.00
S'i. Kinoshita (Montgomery transfer to grants)(+ grant)	4,500.00

Appointments with salaries from contracts:

National Science Foundation contract proposed

Salaries	\$24,000.00
Overhead (15 percent of salaries)	<u>3,600.00</u>
	\$27,600.00

Air Force Office of Scientific Research, AF 49(638)-253, S/A 1, (58-433):
 (Two-year contract, 1959-61)

Salaries remaining from 1959-60	\$34,900.00
Overhead (25 percent of salaries)	<u>8,725.00</u>
	\$43,625.00

Office of Ordnance Research contract, ORD-2884, Mod. 1:

Salaries	\$15,500.00
Overhead (25 percent of salaries)	<u>3,875.00</u>
	\$19,375.00

353.

Assignment to contracts to be decided:

P. Cohen	\$6,800.00
L. Garding (I)	6,000.00
L. Hörmander	8,000.00
H. Huber	7,000.00

Funds to be decided:

C. Teleman

Appointments with other sources of funds:

- D. Buchsbaum, National Science Foundation fellowship
- A. Devinatz, National Science Foundation fellowship
- J. A. Ernest, National Science Foundation fellowship
- O. Goldman, National Science Foundation Faculty fellowship
- E. Hewitt (II), Senior National Science Foundation fellowship
- C. Lyra, (conditional on his obtaining funds)
- T. Matsusaka, Guggenheim fellowship and sabbatical pay from Northwestern
- E. A. Michael, (conditional on National Science Foundation fellowship)
- H. Samelson, (applying for outside funds)
- S. Sherman, (conditional on his obtaining funds)
- C. E. Watts, National Science Foundation fellowship
- O. Zariski (I), Air Force contract at Harvard

Minutes of a meeting of the School of Mathematics held January 21, 1960:

Present: Professors Borel, Gödel, Montgomery, Morse, Oppenheimer, Selberg, Weil, and Whitney.

1. It was voted to increase our grants and salaries effective with 1960-61:

<u>Marital Status</u>	<u>Grant</u>	<u>Salary</u>	<u>Likely Tax on Salary</u>
Single	\$5,000	\$6,100	\$1,072
Married	5,500	6,450	933
One child	5,800	6,650	841
More children	6,000	6,750	735

2. It was voted to approve an application by Morris Hirsch for travel to the Zürich Conference on Topology and Differential Geometry in June, the funds (\$180 round-trip to Paris by MATS) to come from our Air Force Office of Scientific Research contract. [Professor Whitney will notify.]

3. It was voted to sound out Paul Malliavin on coming here for the academic year 1960-61 under a contract instead of a grant, at a comparable salary. After this meeting it was voted to raise Dr. Malliavin's grant to \$5,500, or to increase by a corresponding amount a contract salary for him. [Professor Morse will write.]

4. It was voted to offer René Thom a grant of \$4,500 for Term I, 1961-62. [Professor Morse will write informally.]

5. It was voted to increase the grant of Jean Koszul to \$7,000. [The Director will write.]

6. Ernest Michael was voted membership for the academic year 1960-61. He has a National Science Foundation contract at the University of Washington and will be paid sabbatical salary. [The Director will write.]

7. Thomas E. Stewart was voted membership for the academic year 1960-61 conditional on his application for an extension to his National Science Foundation fellowship being granted. [The Director will write.]

8. Roger F. Williams was voted membership for the academic year 1960-61 conditional on his application for an extension to his National Science Foundation fellowship being granted. [The Director will write.]

9. Richard Lashof was voted membership for the first term of 1960-61 during his Senior National Science Foundation fellowship. [The Director will write.]

10. It was voted to grant membership to Gerard Washnitzer in 1960-61 during his Senior National Science Foundation fellowship, if he should apply. (His application was received after this meeting.) [The Director will write.]

11. Daniel B. Ray was voted membership for the academic year 1960-61 during his Sloan Foundation fellowship. [The Director will write.]

12. P. Emery Thomas was voted membership for the second term of 1960-61; his financial support will come from sabbatical pay and an Air Force contract at Berkeley. [The Director will write.]

13. Joseph A. Wolf was voted membership for the academic year 1960-61 during his National Science Foundation Postdoctoral fellowship. [The Director will write.]

14. Dov Tamari was voted membership for the academic year 1960-61 with a grant-in-aid of \$6,000. [The Director will write.]

15. Mikio Sato was voted membership for the academic year 1960-61 with either a grant-in-aid of \$5,000 or a contract salary of \$6,100. [Professor Whitney will write informally.] [Sato replied accepting contract.]

16. It was voted not to approve membership for Joseph Landin during his National Science Foundation Science Faculty fellowship in 1960-61. [Professor Whitney will write.]

17. It was voted not to approve membership for Shri Krishna Singh. [Professor Whitney will write.]

18. It was voted not to approve membership for M. V. Subba Rao. [Professor Whitney will write.]

19. It was voted not to approve membership for S. M. Shah. [Professor Weil will write.]

20. It was voted not to approve membership for Nobuo Shimada. [Professor Whitney will write.]

21. It was voted not to approve membership for Koichi Yamamoto. [Professor Whitney will write.]

22. It was voted to increase grants or salaries of those whose membership for 1960-61 has already been voted, in accord with the new scale, as follows:

Grants:	A. Haeffliger	\$800	raised to	\$1,300 (+ \$4,500 transferred)
	S'i. Kinoshita	800	" "	1,300 (+ \$4,500 ")
	M. Nishi	5,300	" "	5,800
	T. Ono	5,000	" "	5,500
	H. Toda	5,300	" "	5,800
	T. van de Ven	4,500	" "	5,000
Reservations:	J. Jaworowski	5,000	" "	5,500
	C. T. C. Wall	5,000	" "	5,500

[The Director will write to all but J. Jaworowski and C. T. C. Wall.]

23. It was voted to raise the salary of Ulrich Christian, Assistant to Professor Veblen, to \$6,000 from its present \$5,000. [The Director will write.]

Hassler Whitney
Secretary

356.

January 21, 1960
Appointments, 1960-1961

Appointments with Institute grants-in-aid:

Remaining from 1959-60	\$29,358.87
Appropriation expected for 1960-61	<u>75,000.00</u>

\$104,358.87

J. A. Green (II) (+ reserv'n)	\$2,500.00
A. Haeffliger (also asst. trans.)	1,300.00
S'i. Kinoshita (also asst. trans.)	1,300.00
J. Koszul	7,000.00
P. Malliavin (or \$6,750 on contr.)	5,500.00
M. Nishi	5,800.00
T. Ono	5,500.00

C. L. Siegel	10,000.00
D. Tamari	6,000.00
H. Toda	5,800.00
T. van de Ven	5,000.00
E. Witt	<u>4,500.00</u>

\$60,200.00

Reservations:

J. A. Green (II) (+ grant)	\$ 500.00
J. Jaworowski	5,500.00
C. T. C. Wall	<u>5,500.00</u>

11,500.00

71,700.00

\$32,658.87

Assistant funds:

U. Christian (Veblen)	\$6,000.00
A. Haeffliger (Whitney transfer to grants)(+ grant)	4,500.00
S'i. Kinoshita (Montgomery transfer to grants)(+ grant)	4,500.00

Appointments with salaries from contracts:

National Science Foundation contract proposed

Salaries	\$24,000.00
Overhead (15 percent of salaries)	<u>3,600.00</u>
	\$27,600.00

Air Force Office of Scientific Research, AF 49(638)-253, S/A 1, (58-433):
 (Two-year contract, 1959-61)

Salaries remaining from 1959-60	\$34,900.00
Overhead (25 percent of salaries)	<u>8,725.00</u>
	\$43,625.00

Office of Ordnance Research contract, ORD-2884, Mod. 1:

Salaries	\$15,500.00
Overhead (25 percent of salaries)	<u>3,875.00</u>
	\$19,375.00

Assignment to contracts to be decided:

P. Cohen	\$6,800.00
L. Garding (I)	6,000.00
L. Hörmander	8,000.00
H. Huber	7,000.00
M. Sato	6,100.00

Funds to be decided:

C. Teleman

Appointments with other sources of funds:

D. Buchsbaum, National Science Foundation fellowship
A. Devinatz, National Science Foundation fellowship
J. A. Ernest, National Science Foundation fellowship
O. Goldman, National Science Foundation Faculty fellowship
E. Hewitt (II), Senior National Science Foundation fellowship
R. Lashof (I), Senior National Science Foundation fellowship
C. Lyra, (conditional on his obtaining funds)
T. Matsusaka, Guggenheim fellowship and sabbatical pay from Northwestern
E. A. Michael, National Science Foundation contract at University of Washington
D. B. Ray, Sloan Foundation fellowship
H. Samelson, (applying for outside funds)
S. Sherman, (conditional on his obtaining funds)
T. E. Stewart, (conditional on National Science Foundation fellowship)
P. E. Thomas (II), Air Force contract at Berkeley
C. E. Watts, National Science Foundation fellowship
R. F. Williams, (conditional on National Science Foundation fellowship)
G. Washnitzer, Senior National Science Foundation fellowship
J. A. Wolf, National Science Foundation fellowship
O. Zariski (I), Air Force contract at Harvard

Minutes of a meeting of the School of Mathematics held March 2, 1960:

Present: Professors Beurling, Borel, Gödel, Montgomery, Morse, Oppenheimer, Selberg, Weil, and Whitney.

1. It was voted to give Ulrich Christian an additional \$1,500 because of heavy medical expenses. This amount will be transferred from the Assistants Fund to grants-in-aid. In case of further need the Director will use the Contingency Fund. [The Director will write.]

2. Jean Koszul will come for the first term of 1960-61 instead of the academic year, probably staying through January 1961. It was voted to make his grant \$4,500 for this period. [The Director will write.]

3. It was voted to invite Carl L. Siegel to come here for any period during the academic year 1960-61 he may wish. (The reservation for him of \$10,000 will be retained for this purpose.) [The Director will write.]

4. It was voted to reserve the minimum grant or salary for Thomas E. Stewart in case he does not receive the National Science Foundation Fellowship extension for which he has applied. (It is assumed that he would then be put under a contract, with a salary of \$6,750.) [The Director will write.]

5. Marvin Knopp was voted membership for the academic year 1960-61 conditional on his receiving an extension of his National Science Foundation Fellowship. [The Director will write.]

6. Frank J. Hahn was voted membership for the academic year 1960-61 conditional on his receiving an extension of his National Science Foundation Fellowship. [The Director will write.]

7. Mrs. Anne C. Morel was voted membership for the academic year 1960-61. In case her outside support is not sufficient, we will bring this up to \$5,500. At present she has been offered an American Association of University Women Fellowship of \$4,000; she has not yet heard from the National Science Foundation or Guggenheim Foundation. [The Director will write.]

8. Costake Teleman will be offered a grant of \$5,500 for the academic year 1960-61, a transfer from Professor Weil's assistant funds. [Director will write.]

9. Hans Rademacher was voted membership during the academic year 1960-61. He will be on sabbatical leave with his salary assured. [The Director will write.]

10. Karel de Leeuw was voted membership during the academic year 1960-61 with a salary of \$6,750 under a contract. [The Director will write.]

359.

11. Melvin Henriksen was voted membership during the academic year 1960-61. A reservation will be made for him in case he does not receive full outside support. (He has sabbatical leave pay and possibly an Office of Naval Research grant through Purdue. Half of his salary here under contract would be \$3,375.) [The Director will write.]

12. Errett A. Bishop was voted membership during the academic year 1960-61 or 1961-62 with his grant or salary to be determined. [Professor Beurling will write informally.]

13. Bernard R. Gelbaum was voted membership during the academic year 1960-61. He will have a National Science Foundation grant through the University of Minnesota. [The Director will write.]

14. Irving L. Glicksberg was voted membership during the academic year 1960-61 with a salary of \$6,750 from a contract. [The Director will write.]

15. Clifford Spector was voted membership during the academic year 1960-61. A reservation of \$6,650 under a contract will be made for him. He is applying through Ohio State University for a grant from the Office of Naval Research and/or Office of Ordnance Research. [The Director will write.]

16. James P. Jans was voted membership during the academic year 1960-61 conditional on his receiving outside support. [The Director will write.]

17. Bruno Harris was voted membership during the academic year 1960-61 conditional on his receiving outside support. [The Director will write.]

18. Louis Auslander was voted membership during the academic year 1960-61 conditional on his receiving outside support. [The Director will write.]

19. Tatsuo Homma was voted membership during the academic year 1960-61 with a grant of \$6,000. [The Director will write.]

20. Nagayoshi Iwahori was voted membership for the academic year 1960-61 with a grant of \$5,500. [The Director will write.]

21. It was voted not to approve membership in 1960-61 for Roy E. Wild. [Professor Whitney will write.]

22. It was voted not to approve membership in 1960-61 for Douglas C. Dorrough. [Professor Whitney will write.]

23. It was voted not to approve membership in 1960-61 for Gregers L. Krabbe. [Professor Whitney will write.]

24. It was voted not to approve membership in 1960-61 for Edwin H. Connell. [Professor Montgomery will write.]

360.

25. It was voted not to approve membership in 1960-61 for Georges G. Weill. [Professor Whitney will write.]

26. It was voted not to approve membership in 1960-61 for Mark M. Robertson. [Professor Whitney will write.]

27. It was voted not to approve membership in 1960-61 for Heinz G. K. Tillmann. [Professor Morse will write.]

28. It was voted not to approve membership in 1960-61 for Juliusz Reichbach. [Professor Gödel will write.]

29. It was voted that bills for publication expenses by National Science Foundation fellows should be sent to the N.S.F. to be paid out of the funds designated for that purpose. (Action on this matter might be held up pending further clarification by the N.S.F.)

Hassler Whitney

Secretary

361.

March 2, 1960
Appointments, 1960-1961

Appointments with Institute grants-in-aid:

Remaining from 1959-60			\$29,358.87
Appropriation expected for 1960-61			<u>75,000.00</u>
			\$104,358.87
J. A. Green (II)(+ reserv'n)	\$2,500.00		
A. Haeffliger (also asst. trans.)	1,300.00		
T. Homma	6,000.00		
N. Iwahori	5,500.00		
J. Jaworowski	5,500.00		
S'i. Kinoshita (also asst. trans.)	1,300.00		
J. Koszul (I)	4,500.00		
M. Nishi	5,800.00		
T. Ono	5,500.00		
C. L. Siegel	10,000.00		
D. Tamari	6,000.00		
H. Toda	5,800.00		
T. van de Ven	5,000.00		
E. Witt	<u>4,500.00</u>	\$69,200.00	
Reservations:			
J. A. Green (II)(+ grant)	\$ 500.00		
Anne C. Morel	1,500.00		
C. T. C. Wall	<u>5,500.00</u>	<u>7,500.00</u>	<u>76,700.00</u>
			\$27,658.87

Assistant funds:

U. Christian (Veblen)	\$6,000.00
A. Haeffliger (Whitney transfer to grants)(+ grant)	4,500.00
S'i. Kinoshita (Montgomery transfer to grants)(+ grant)	4,500.00
C. Teleman (Weil transfer to grants)	5,500.00

Appointments with salaries from contracts:

National Science Foundation contract proposed

Salaries	\$24,000.00
Overhead (15 percent of salaries)	<u>3,600.00</u>
	\$27,600.00

Air Force Office of Scientific Research, AF 49(638)-253, S/A 1, (58-433):
 (Two-year contract, 1959-61)

Salaries remaining from 1959-60	\$34,900.00
Overhead (25 percent of salaries)	<u>8,725.00</u>
	\$43,625.00

Office of Ordnance Research contract, ORD-2884, Mod. 1:

Salaries	\$15,500.00
Overhead (25 percent of salaries)	<u>3,875.00</u>
	\$19,375.00

Assignment to contracts to be decided:

P. Cohen	\$6,800.00	
K. de Leeuw	6,750.00	
L. Garding (I)	6,000.00	
I. L. Glicksberg	6,750.00	
[M. Henriksen	3,375.00	reservation in case needed]
L. Hörmander	8,000.00	
H. Huber	7,000.00	
P. Malliavin	6,750.00	
M. Sato	6,100.00	
T. E. Stewart	6,750.00	
[C. Spector	6,650.00	reservation in case needed]

Funds to be decided:

E. A. Bishop

Appointments with other sources of funds:

L. Auslander, (conditional on outside funds)
 D. Buchsbaum, National Science Foundation fellowship
 A. Devinatz, National Science Foundation fellowship
 J. A. Ernest, National Science Foundation fellowship
 B. R. Gelbaum, National Science Foundation grant through Univ. of Minn.
 O. Goldman, National Science Foundation Faculty fellowship
 F. J. Hahn, (conditional on National Science Foundation fellowship extension)
 B. Harris, (conditional on outside support)
 E. Hewitt (II), Senior National Science Foundation fellowship
 J. P. Jans (conditional on outside support)
 M. Knopp, (conditional on National Science Foundation fellowship extension)
 R. Lashof (I), Senior National Science Foundation fellowship
 C. Lyra, (conditional on his obtaining funds)
 T. Matsusaka, Guggenheim fellowship and sabbatical pay from Northwestern
 H. Rademacher, sabbatical pay from University of Pennsylvania
 D. B. Ray, Sloan Foundation fellowship
 H. Samelson, (applying for outside funds)
 S. Sherman, (conditional on his obtaining funds)
 P. E. Thomas (II), Air Force contract at Berkeley
 C. E. Watts, National Science Foundation fellowship
 R. F. Williams, National Science Foundation fellowship
 G. Washnitzer, Senior National Science Foundation fellowship
 J. A. Wolf, National Science Foundation fellowship
 O. Zariski (I), Air Force contract at Harvard
 E. A. Michael, National Science Foundation grant at University of Washington

363.

Minutes of a meeting of the School of Mathematics held March 31, 1960:

Present: Professors Beurling, Borel, Gödel, Montgomery, Morse, Oppenheimer, Selberg, Weil, and Whitney.

1. It was voted that the Institute should not pay the bill for publication by R. R. Phelps of a paper which was sent in for publication during the tenure of a National Science Foundation fellowship, if such a bill is sent to the Institute.

2. It was agreed that we should make known to the proper places the policy of the School of Mathematics of the Institute not to pay for publication expenses of National Science Foundation fellows for whom the expense is provided under a fund for publication and travel. Notification should be made to the National Science Foundation, to NSF fellows who come here, and to the American Mathematical Society. [Professor Morse will write to the NSF; Professor Whitney to the AMS.]

3. Professor Whitney was asked to serve one more year as Mathematics Executive and Secretary. He agreed to serve.

4. A grant of \$1,000 was made to Solomon Feferman to aid in travel and sojourn. [The Director will write.]

5. It was voted that the status of membership of Bruno Harris be held in abeyance until word is received from Harris about the precise status of his Research Associateship with the Air Force. If the status is satisfactory, membership will be as requested. The Institute will not expect to be able to offer Harris housing. [Professor Montgomery will correspond with him in this connection.] It is understood that members of the Institute who are not primarily members of another institution at the same time will have priority for housing.

6. It was voted to reserve the sum of \$6,000 to insure membership for Hans Samelson in 1960-61. Samelson will not be notified of the actual reservation.

7. It was voted not to offer a grant to Louis Auslander toward his conditional membership in 1960-61. [Professor Whitney will write.]

8. It was voted not to offer a grant to Frank J. Hahn for 1960-61. [Professor Montgomery will notify.]

9. Jean Poncet was voted membership for the academic year 1960-61. Funds, as needed, will come from Professor Borel's assistant funds. [Professor Borel will consult with Poncet.]

10. Wojciech Słowikowski was voted membership for the academic year 1960-61 with a grant of \$5,500. [The Director will write.]

11. Kuo-Tsai Chen was voted membership during the period December 1960 through February 1961 with a grant of \$3,000. [Professor Montgomery will write informally.]

12. Robert Bonic was voted membership during his National Science Foundation fellowship in the academic year 1960-61. [The Director will write.]

13. Morton Brown was voted membership during his National Science Foundation fellowship in the academic year 1960-61. [The Director will write.]

14. Carl C. Faith was voted membership during his National Science Foundation fellowship in the academic year 1960-61. [The Director will write.]

15. Paul D. Hill was voted membership during his National Science Foundation fellowship in the academic year 1960-61. [The Director will write.]

16. Jacob Feldman was voted membership for Term I of 1960-61 during his National Science Foundation fellowship. [The Director will write.]

17. Vernon A. Kramer was not voted membership during 1960-61. [Professor Whitney will write.]

18. Lee W. Anderson was not voted membership during 1960-61. [Professor Whitney will write.]

19. Miss Betty C. Detwiler was not granted membership during 1960-61. [Professor Whitney will write.]

20. James M. Kister was not granted membership during 1960-61. [Professor Whitney will write.]

21. C. Wayne Patty was not granted membership during 1960-61. [Professor Whitney will write.]

22. Jack Segal was not granted membership during 1960-61. [Professor Whitney will write.]

23. Thomas I. Seidman was not granted membership during 1960-61. [Professor Whitney will write.]

24. Arthur B. Simon was not granted membership during 1960-61. [Professor Whitney will write.]

25. Gerald E. Sacks was not voted membership during his predoctoral studies. [Professor Montgomery will notify.]

26. It was voted to invite Laurent Schwartz for a stay of about ten days in the autumn of 1960 to give one or more lectures with an honorarium of \$500. If he can stay longer, the honorarium will be adjusted accordingly. [The Director will write.]

Hassler Whitney

Secretary

School business, summer, 1960

1. O. Timothy O'Meara was granted membership for Term II of 1960-61 during his sabbatical leave from Princeton University.
2. P. E. Thomas asked for and was granted a postponement of his membership from Term II, 1960-61, to Term I, 1961-62.
3. H. C. Wang was granted membership for the academic year 1961-62, during his Guggenheim Fellowship.
4. S. Iyanaga was invited to visit during September 1960 with an honorarium of \$500.
5. S. Kinoshita, at Professor Montgomery's request, was transferred from the assistants fund to a total grant-in-aid of \$6,000.
6. G. Kreisel was invited to visit the Institute for the period of September 15 to October 15, 1960 with a grant of \$1,000 which will be transferred to the Mathematics Visitors Fund from Professor Gödel's assistant fund.
7. S. Kuroda was invited to visit for a few days in June and was granted guest housing.
8. Raymond Ayoub was invited for a summer visit from July 15 to September 1.
9. Samuel Kaplan was invited for a summer visit until September 1, 1960.
10. Michel Kervaire was invited to spend the month of August at the Institute.
11. Alexandre Rodrigues was invited for the academic year, 1960-61, during his Guggenheim Fellowship.
12. Bo Kjellberg was invited to visit during October with an honorarium of \$200.

Other information of interest to the School Faculty:

1. Henry S. Leonard's membership was continued through the academic year 1960-61. He will receive a grant of \$3,000 for the first term, a transfer from Professor Gödel's assistant fund. Term II funds are not yet known.
2. Mrs. Anne Morel will not return for 1960-61.
3. C. de Lyra was granted membership for 1960-61 during his Rockefeller Foundation Fellowship.
4. J-P. Serre will not come during the fall of 1960.
5. E. R. Gentile was appointed assistant to Professor Montgomery.
6. L. A. Rubel could not come for the summer visit for which he was invited.
7. André Haefliger's grant was transferred to the new IBM Fellowship.
8. Jean Poncet did not receive a Swiss fellowship, and so his support will come from a transfer of Professor Borel's assistant funds of \$5,000 and a grant of \$500.

366.

9. Pierre Conner was given an honorarium of \$50, at the request of Professor Montgomery, when Conner visited in July and gave a talk.

10. Tsuneo Tamagawa was given an honorarium of \$20 by Professor Weil from his personal visitors fund allowance when Tamagawa visited here in September.

See budget file
 Corrected 367.

October 17, 1960
Appointments, 1960-1961

Appointments with Institute grants-in-aid:

Remaining from 1959-1960		\$29,358.87
Appropriation for 1960-61		<u>75,000.00</u>
		\$104,358.87
E. A. Bishop (II)	\$2,500.00	
A. Granas (II)	2,500.00	
T. Homma	6,000.00	
N. Iwahori	5,500.00	
M. Nishi	5,800.00	
T. Ono	5,500.00	
C. L. Siegel	2,500.00	
D. Tamari	6,000.00	
E. Witt	<u>5,000.00</u>	<u>41,300.00</u>
		\$63,058.87

Assistant funds:

U. Christian (Veblen)		\$6,000.00
E. R. Gentile (Montgomery)		5,950.00
W. Huebsch (Morse)		5,500.00
G. Kreisel (Gödel trans. to visitors fund; visit 9/60-10/60)		1,000.00
H. S. Leonard (Gödel trans. \$4,000 + Oppenheimer trans. \$2,000)		6,000.00
A. Rodrigues (Weil trans. to grant)(+ Guggenheim)		3,500.00

Grants from NSF for research in analysis:

Two-year grant, 1960-1962			\$93,600.00
K. T. Chen	\$3,000.00		
P. J. Cohen	6,000.00		
M. Sato	5,000.00		
W. Słowiowski	5,800.00		
T. van de Ven	<u>5,000.00</u>	\$24,800.00	
Overhead at 20 percent		<u>4,900.00</u>	<u>29,700.00</u>
Remaining of total grant			\$63,900.00

Grants from NSF for research in algebra and topology:

Two-year grant, 1960-1962			\$93,600.00
I. L. Glicksberg	\$6,000.00		
J. A. Green (II)	2,500.00		
J. W. Jaworowski	5,500.00		
S. Kinoshita	6,200.00		
J. Koszul (I)	4,500.00		
J. Poncet	5,500.00		
H. Toda	<u>5,800.00</u>	\$36,000.00	
Overhead at 20 percent		<u>7,200.00</u>	<u>43,200.00</u>
Remaining of total grant			\$50,400.00

Grant from IBM Corporation:

A. Haeffliger	\$5,900.00
---------------	------------

See budget file for
 Corrected p. 368-368.

Appointments with salaries from contracts:

Air Force Office of Scientific Research, AF49(638)-253, S/A 1, (58-433):
 (Two-year contract, 1959-61)

Salaries remaining from 1958-			\$34,536.00
Overhead remaining from 1958-			<u>8,634.00</u>
			\$43,170.00
K. deLeeuw	\$6,750.00		
L. Gårding (I)	6,000.00		
H. Huber	7,000.00		
K. Kodaira (II)	7,000.00		
P. Malliavin	<u>6,750.00</u>	\$33,500.00	
Overhead at 25 percent		8,375.00	<u>41,875.00</u>
			\$1,295.00
Salaries remaining			\$1,036.00
Overhead remaining			259.00

Office of Ordnance Research, ORD-2884, Mod. 1:

Salaries for 1960-61			\$15,500.00
Overhead			<u>3,875.00</u>
			\$19,375.00
T. E. Stewart	\$6,750.00		
L. Hörmander	<u>8,000.00</u>	\$14,750.00	
Overhead at 25 percent		<u>3,687.50</u>	<u>18,437.50</u>
			\$937.50 <i>cdh</i>
Salaries remaining			\$750.00
Overhead remaining			187.50

Appointments with other sources of funds:

E. A. Bishop (II), Sloan Foundation fellowship
 R. Bonic, National Science Foundation fellowship
 M. Brown, National Science Foundation fellowship
 D. Buchsbaum, National Science Foundation fellowship
 A. Devinatz, National Science Foundation fellowship
 J. A. Ernest, National Science Foundation fellowship
 C. C. Faith, National Science Foundation fellowship
 Jacob Feldman, National Science Foundation fellowship
 B. R. Gelbaum, National Science Foundation grant thru Univ. of Minnesota
 O. Goldman, National Science Foundation Faculty fellowship
 B. Harris, National Science Foundation fellowship and Air Force Research Associateship at Princeton University
 E. Hewitt (II), Senior National Science Foundation fellowship
 P. D. Hill, National Science Foundation fellowship
 R. Lashof (I), Senior National Science Foundation fellowship
 J. Leray, Special Institute grant
 C. de Lyra, Rockefeller fellowship
 T. Matsusaka, Guggenheim fellowship and sabbatical pay from Northwestern
 E. A. Michael, National Science Foundation grant thru Univ. of Wash. and sabb'l
 O. T. O'Meara (II), sabbatical pay from Princeton University
 H. Rademacher, sabbatical pay from University of Pennsylvania

*See budget file
for corrected p. 369*

369.

- D. B. Ray, Sloan Foundation fellowship
- H. Samelson, sabbatical pay and National Science Foundation fellowship
- C. Spector, Office of Naval Research grant thru Ohio State University
- C. T. C. Wall, Harkness Fellowship
- G. Washnitzer, Senior National Science Foundation fellowship
- C. E. Watts, National Science Foundation fellowship
- R. F. Williams, National Science Foundation fellowship
- J. A. Wolf, National Science Foundation fellowship
- O. Zariski (I), Air Force contract through Harvard University

THE INSTITUTE FOR ADVANCED STUDY

SCHOOL OF MATHEMATICS

MINUTES

1960-

1960-61

Professor Hassler Whitney
Secretary

Minutes of a meeting of the Faculty in Mathematics held October 17, 1960.

Present: Professors Beurling, Borel, Gödel, Montgomery, Morse, Oppenheimer, Selberg, Weil, and Whitney.

1. It was voted to extend the membership of Jacob Feldman through the second term of 1960-61 during his National Science Foundation fellowship. [The Director will write.]

2. Harish-Chandra was voted membership for the academic year 1961-62 with the amount of his salary being assured. \$15,000 will be reserved for this purpose. [The Director will write formally; Professor Borel informally.]

3. James A. Jenkins was voted membership for the academic year 1961-62 with a salary of \$15,000 from a contract. [The Director will write formally; Professor Morse informally.]

4. Pierre E. Conner was voted membership for the academic year 1961-62 during his Sloan Foundation fellowship. [The Director will notify.]

5. C. T. Yang was voted membership for the academic year 1961-62. A reservation of \$6,000 will be made for him. [The Director will write formally; Professor Montgomery will notify him informally, assuring him of some support from us, if necessary.]

6. Jacques Deny was voted membership for an academic year, probably to start in Term I of 1961-62, with a salary of \$10,000 from a contract. [Professor Beurling will correspond with him informally.]

7. L. Carleson was voted membership for the academic year 1961-62 with a salary of \$8,000 from a contract. [The Director will write formally; Professor Beurling informally.]

8. J. Frank Adams was voted membership for Term I, 1961-62, with a grant of \$3,000. [The Director will write.]

9. Rolph Schwarzenberger was voted membership for the academic year 1961-62 with a grant of \$5,500. A reservation of \$500 will be made in case he does not receive Fulbright travel aid. [The Director will write.]

10. Costake Teleman was voted membership for the academic year 1961-62 with a grant of \$5,500. [The Director will write formally; Professor Weil informally.]

11. Hans Reiter was voted membership for the academic year 1961-62 with a grant of \$5,000 to come from a transfer of Professor Weil's assistant fund. [The Director will write formally; Professor Weil informally.]

371.

12. Arunas L. Liulevicius was voted membership for the academic year 1961-62. He will be asked to keep us informed as to possible support during this period. [The Director will write.]

13. Bernard M. Dwork was voted membership for the academic year 1961-62. He will be asked to keep us informed as to possible support during this period. [The Director will write.]

14. Jean Leray will be assured that he will be welcome here if he wishes to return at some future time. [The Director will notify informally.]

15. Jean-Pierre Serre will be assured that he will be welcome here if he wishes to return at some future time. [The Director will notify informally.]

Hassler Whitney

Secretary

October 17, 1960
Appointments, 1960-1961

Appointments with Institute grants-in-aid:

Remaining from 1960-1961			\$70,058.87
J. Frank Adams (I)	\$3,000.00		
Rolph Schwarzenberger	5,500.00		
Costake Teleman	5,500.00		
René Thom (I)	<u>4,500.00</u>	\$18,500.00	
Reservations:			
Harish-Chandra	\$15,000.00		
Rolph Schwarzenberger	500.00		
C. T. Yang	<u>6,000.00</u>	<u>21,500.00</u>	<u>40,000.00</u>
			\$30,058.87

Assistant funds:

Enzo R. Gentile (Montgomery)	\$6,000.00
Hans Reiter (Weil transfer to grants)	5,000.00

Contract reservations:

Lennart Carleson	\$8,000.00
Jacques Deny	10,000.00
James A. Jenkins	15,000.00

Funds uncertain:

Bernard M. Dwork

Appointments with other sources of funds:

Pierre E. Conner, Sloan Foundation fellowship
Arunas L. Liulevicius, National Science Foundation fellowship
P. Emery Thomas (I), Air Force contract at Berkeley
H. C. Wang, Guggenheim Foundation fellowship

Minutes of a meeting of the Faculty in Mathematics held November 8, 1960:

Present: Professors Beurling, Borel, Gödel, Montgomery, Morse, Oppenheimer, Selberg, Weil, and Whitney.

1. Errett A. Bishop was voted membership for the academic year 1961-62. [Professor Montgomery will write informally to ascertain the situation with regard to the Sloan fellowship, sabbatical pay, etc.]

2. The matter of where the funds for Carl L. Siegel should come from was discussed. It was voted that if Professors Montgomery, Selberg and Weil should agree on any action, then after notification to the Director and Professor Whitney, action will be taken.

3. It was voted that a supplementary grant of \$500 should be made to Ernst Witt, making his total grant for 1960-61, \$5,000. [The Director will write.]

4. Andrzej Granas was voted membership for the second term, 1960-61, with a grant of \$2,500. [The Director will write.]

5. John A. Ernest was voted membership for the academic year 1961-62 during his National Science Foundation fellowship. [The Director will write.]

6. John R. Stallings was voted membership for the academic year 1961-62, with a salary of \$7,000 under a contract. [Professor Borel will write informally; the Director formally.]

7. E. C. Zeeman was voted membership for the academic year 1961-62. [Professor Borel will write informally to determine a proper grant.]

8. Morton Brown was voted membership for the academic year 1961-62. The source of funds is not yet determined. [The Director will write.]

9. Hubert Delange was voted membership for the first term of 1961-62. Professor Selberg will write informally to determine whether he will keep his salary during this period and whether he expects to bring his family with him.

10. Ennio De Giorgi was voted membership for the academic year 1961-62 with a grant of \$7,000 (or, if it seems advisable later, an equivalent salary under a contract). A reservation of \$500 will be made in case he does not receive Fulbright aid for travel. [The Director will write.]

11. Leon Henkin was voted membership for the academic year 1961-62. [Professor Gödel will write informally as to funds, with the sum of \$5,000 being reserved.]

12. William M. Boothby was voted membership for the academic year 1961-62 conditional on his receiving outside support. He is applying for an Air Force Office of Scientific Research contract. [The Director will write.]

13. François Bruhat was voted membership for the academic year 1961-62. [Professor Borel will write informally to determine the period for which he will come and the proper grant or salary.]

Hassler Whitney, Secretary

November 8, 1960
Appointments, 1961-1962

Appointments with Institute grants-in-aid:

Remaining from 1960-1961 \$67,558.87

J. Frank Adams (I)	\$3,000.00	
Ennio De Giorgio	7,000.00	
Rolph Schwarzenberger	5,500.00	
Costake Teleman	5,500.00	
René Thom (I)	<u>4,500.00</u>	\$25,500.00

Reservations:

Ennio De Giorgio	\$ 500.00		
Harish-Chandra	15,000.00		
Leon Henkin	5,000.00		
Rolph Schwarzenberger	500.00		
C. T. Yang	<u>6,000.00</u>	<u>27,000.00</u>	<u>52,500.00</u>
			\$15,058.87

Assistant funds:

Enzo R. Gentile (Montgomery)	\$6,000.00
Hans Reiter (Weil transfer to grants)	5,000.00

Contract reservations:

Lennart Carleson	\$ 8,000.00
Jacques Deny	10,000.00
James A. Jenkins	15,000.00
John R. Stallings	7,000.00

Funds not determined:

Errett A. Bishop
Morton Brown
Francois Bruhat
Hubert Delange (I) \$3,500 grant - 11/22/60
Bernard M. Dwork
E. C. Zeeman

Appointments with other sources of funds:

William M. Boothby, applying for Air Force contract through Washington Univ.
Pierre E. Conner, Sloan Foundation fellowship
John A. Ernest, National Science Foundation fellowship
Arunas L. Liulevicius, National Science Foundation fellowship
P. Emery Thomas (I), Air Force contract at Berkeley
H. C. Wang, Guggenheim Foundation fellowship

Minutes of a meeting of the Faculty in Mathematics held December 13, 1960:

Present: Professors Beurling, Borel, Montgomery, Morse, Oppenheimer, Selberg, Weil, and Whitney.

1. The invitation to the Executive Committee of the International Mathematical Union to meet at the Institute in September 1961 was discussed. We hope to have more information about the proposed meeting at the time of our next meeting in January.

2. It was voted to make a grant of \$2,500 to Errett A. Bishop during his membership here in the second term of this year. This will enable him to use part of his Sloan Foundation fellowship next summer, and will furnish a small additional sum for travel. [The Director will write.]

3. It was voted to raise the salary of John R. Stallings for the academic year 1961-62 to \$8,000 under a contract. This will more nearly approach the sum he has been offered for a teaching position next year. [The Director will write.]

4. It was voted to offer François Bruhat a grant of \$4,000 for the first term of 1961-62. He expects to lose about one month's salary at Nancy. [The Director will write.]

5. It was voted to offer Jacques Deny a salary of \$5,500 under a contract during his membership in the second term of the academic year 1961-62. (He had been offered \$10,000 for the academic year. It is not clear what part of his salary in France he may be able to retain.) [The Director will write.]

6. Joseph A. Wolf was voted membership for the academic year 1961-62 conditional on his receiving a renewal of his National Science Foundation fellowship. [The Director will write.]

7. It was voted not to offer membership to Wojciech Słowiowski during the academic year 1961-62. [Professor Whitney will write.]

8. It was voted not to offer membership to Jan W. Jaworowski during the academic year 1961-62. [Professor Whitney will write.]

9. Tatsuo Homma was voted membership for the academic year 1961-62 with a grant of \$6,000. [The Director will write.]

10. Nagayoshi Iwahori was voted membership for the academic year 1961-62 with a grant of \$5,500. [The Director will write.]

11. Mieo Nishi was voted membership for the academic year 1961-62 with a grant of \$5,800. [The Director will write.]

12. Mikio Sato was voted membership for the academic year 1961-62 with a grant of \$5,000. [The Director will write.]

374.

13. Albert Nijenhuis was voted membership for the academic year 1961-62. He is applying for (two out of three of) a Guggenheim fellowship, an Office of Naval Research contract, and sabbatical leave. He will be asked to keep in touch with us as to source of support. [The Director will write.]

14. Miss Joanne Elliott was voted membership for the academic year 1961-62 conditional on receiving outside support. After the meeting a letter was received stating that she has received a Senior National Science Foundation fellowship. [The Director will write.]

15. Robert Steinberg was voted membership for the academic year 1961-62 with a salary of \$10,000 under a contract. [Professor Borel will write informally; the Director formally.]

16. Tonny Albert Springer was voted membership for the academic year 1961-62 with a grant of \$6,000. [Professor Borel will write informally; the Director formally.]

17. David B. A. Epstein was voted membership for the academic year 1961-62 with a grant of \$5,500. [The Director will write.]

18. It was voted not to offer membership to Paul M. Cohn during the academic year 1961-62. [Professor Whitney will write.]

19. It was voted not to offer membership to Karl W. Gruenberg during the academic year 1961-62. [Professor Whitney will write.]

20. It was voted not to offer membership to Yukihiro Kodama during the academic year 1961-62. [Professor Whitney will write.]

21. It was voted not to offer membership to Shoji Koizumi during the academic year 1961-62. [Professor Whitney will write.]

22. It was voted not to offer membership to Tadashi Nagano during the academic year 1961-62. [Professor Whitney will write.]

23. It was voted not to offer membership to Mark M. Robertson during the academic year 1961-62. [Professor Whitney will write.]

24. It was voted not to offer membership to Hidetaka Terasaka during the academic year 1961-62. [Professor Whitney will write.]

25. It was voted not to offer membership to Yasuro Tomonaga during the academic year 1961-62. [Professor Whitney will write.]

Hassler Whitney

Secretary

December 13, 1960
Appointments, 1961-1962

Appointments with Institute grants-in-aid:

Remaining from 1960-1961	\$62,558.87
Expected appropriation for 1961-1962	<u>75,000.00</u>

\$137,558.87

J. Frank Adams (I)	\$3,000.00	
François Bruhat (I)	4,000.00	
Ennio De Giorgio	7,000.00	
Hubert Delange (I)	3,500.00	
David B. A. Epstein	5,500.00	
Tatsuo Homma	6,000.00	
Nagayoshi Iwahori	5,500.00	
Mieo Nishi	5,800.00	
Mikio Sato	5,000.00	
Rolph Schwarzenberger	5,500.00	
Tonny A. Springer	6,000.00	
Costake Teleman	5,500.00	
René Thom (I)	4,500.00	
E. Christopher Zeeman (I)	<u>3,500.00</u>	\$70,300.00

Reservations:

Ennio De Giorgio	\$ 500.00	
Harish-Chandra	15,000.00	
Leon Henkin	5,000.00	
Rolph Schwarzenberger	500.00	
C. T. Yang	<u>6,000.00</u>	<u>27,000.00</u>

97,300.00

\$40,258.87

Assistant funds:

Enzo R. Gentile (Montgomery)	\$6,000.00
Hans Reiter (Weil transfer to grants)	5,000.00

Contract reservations:

Lennart Carleson	\$ 8,000.00
Jacques Deny (II)	5,500.00
James A. Jenkins	15,000.00
John R. Stallings	8,000.00
Robert Steinberg	10,000.00

Funds not determined:

Errett A. Bishop
 Morton Brown
 Bernard M. Dwork

Appointments with other sources of funds:

William M. Boothby, Senior National Science Foundation fellowship
 Pierre E. Conner, Sloan Foundation fellowship
 Joanne Elliott, Senior National Science Foundation fellowship
 John A. Ernest, National Science Foundation fellowship
 Arunas L. Liulevicius, National Science Foundation fellowship
 Albert Nijenhuis, conditional on outside funds for support
 P. Emery Thomas (I), Air Force contract at Berkeley
 H. C. Wang, Guggenheim Foundation fellowship
 Joseph A. Wolf, conditional on receiving a National Science Foundation fellowship

Minutes of a meeting of the Faculty in Mathematics held January 31, 1961:

Present: Professors Beurling, Gödel, Montgomery, Morse, Oppenheimer, Selberg, Weil, and Whitney.

1. The Director spoke about the decision of the Trustees to raise prices in the Cafeteria, starting before the academic year 1961-62, and to raise apartment rentals (roughly 30 percent), starting a year later. Partly with this in mind, we may wish to raise the amounts of our grants and salaries, starting in 1962-63.

2. Jean-Pierre Serre was voted membership during Term I of 1961-62 with a grant of \$7,000. [The Director will write.]

3. Clifford Spector was voted membership during the academic year 1961-62 with a grant of \$6,000. [The Director will write.]

4. It was recalled that we would furnish support to Bernard M. Dwork during his membership in 1961-62, if any should be needed.

5. It was voted not to offer membership to Hidegorô Nakano during the academic year 1961-62. [Professor Whitney will write.]

6. It was voted not to offer membership to Tsuyoshi Ando during the academic year 1961-62. [Professor Whitney will write.]

7. It was voted not to offer membership to Tetsuya Shimogaki during the academic year 1961-62. [Professor Whitney will write.]

8. K. G. Ramanathan was voted membership during the academic year 1961-62 with a grant of \$6,500. [The Director will write.]

9. Michio Kuga was voted membership during the academic year 1961-62 with a grant of \$5,800. [The Director will write.]

10. It was voted not to offer membership in 1961-62 to Yuan Shih Chow. [Professor Whitney will write.]

11. It was voted not to offer membership in 1961-62 to Haskell Cohen. [Professor Whitney will write.]

12. It was voted not to offer membership in 1961-62 to Louis de Branges. [Professor Whitney will write.]

13. It was voted not to offer membership in 1961-62 to Baruch Germansky. [Professor Whitney will write.]

14. It was voted not to offer membership in 1961-62 to Henry W. Gould. [Professor Whitney will write.]

15. It was voted not to offer membership in 1961-62 to Tokushi Nakamura. [Professor Whitney will write.]

16. It was voted not to offer membership in 1961-62 to Mehmet Namik Oğuztöreli. [Professor Whitney will write.]

17. It was voted not to offer membership in 1961-62 to Subhash Chandra Saxena. [Professor Whitney will write.]

18. It was voted not to offer membership in 1961-62 to Vikramaditya Singh. [Professor Whitney will write.]

19. It was voted not to offer membership in 1961-62 to T. P. Srinivasan. [Professor Whitney will write.]

20. It was voted not to offer membership in 1961-62 to Masahiro Sugawara. [Professor Whitney will write.]

21. It was voted not to offer membership in 1961-62 to Koichi Yamamoto. [Professor Whitney will write.]

22. D. J. Newman was voted membership during the academic year 1961-62. [Professor Beurling will write to explore the possibility of his coming.]

23. Robert M. Blumenthal was voted membership during the academic year 1961-62 conditional on his receiving a National Science Foundation fellowship. [The Director will write.]

24. J. H. Sampson was voted membership for the academic year 1961-62 during his National Science Foundation Senior fellowship. [The Director will write.]

25. Bertram Yood was voted membership during the academic year 1961-62. He has support from a National Science Foundation grant and sabbatical pay. [The Director will write.]

26. William W. Tait, III, was voted membership during the academic year 1961-62 with a grant of \$5,800. [The Director will write.]

27. Oscar Goldman was voted membership during the academic year 1961-62 conditional on his receiving outside support. He will be asked to let us know if his application for outside funds is unsuccessful. [The Director will write.]

28. Irving L. Glicksberg was voted membership during the academic year 1961-62 with a grant of \$6,000. [The Director will write.]

29. Carl C. Faith was voted membership during the academic year 1961-62 with a grant of \$6,000. [The Director will write.]

30. It was decided to continue our policy of giving travel grants only in special cases such as perhaps to a member invited to give a talk at a meeting or conference.

Hassler Whitney

Secretary

January 31, 1961
Appointments, 1961-1962

Appointments with Institute grants-in-aid:

Remaining from 1960-1961	\$63,058.87
Expected appropriation for 1961-1962	<u>75,000.00</u>

\$138,058.87

J. Frank Adams (I)	\$3,000.00	
François Bruhat (I)	4,000.00	
Ennio De Giorgio	7,000.00	
Hubert Delange (I)	3,500.00	
David B. A. Epstein	5,500.00	
Carl C. Faith	6,000.00	
Irving L. Glicksberg	6,000.00	
Tatsuo Homma	6,000.00	
Nagayoshi Iwahori	5,500.00	
Michio Kuga	5,800.00	
Mieo Nishi	5,800.00	
K. G. Ramanathan	6,500.00	
Mikio Sato	5,000.00	
Rolph Schwarzenberger	5,500.00	
Jean-Pierre Serre (I)	7,000.00	
Clifford Spector	6,000.00	
Tonny A. Springer	6,000.00	
William W. Tait, III	5,800.00	
Costake Teleman	5,500.00	
René Thom (I)	4,500.00	
E. Christopher Zeeman (I)	<u>3,500.00</u>	\$113,400.00

Reservations:

Ennio De Giorgio	\$ 500.00	
Harish-Chandra	15,000.00	
Leon Henkin	5,000.00	
Rolph Schwarzenberger	500.00	
C. T. Yang	<u>6,000.00</u>	<u>27,000.00</u>

140,400.00

- \$2,341.13

Assistant funds:

Enzo R. Gentile (Montgomery)	\$6,000.00
Hans Reiter (Weil transfer to grants)	5,000.00

Contract reservations:

Lennart Carleson	\$ 8,000.00
Jacques Deny (II)	5,500.00
James A. Jenkins	15,000.00
John R. Stallings	8,000.00
Robert Steinberg	10,000.00

Funds not determined:

Errett A. Bishop
 Morton Brown
 Bernard M. Dwork
 D. J. Newman

Appointments with other sources of funds:

Robert M. Blumenthal, conditional on National Science Foundation fellowship
William M. Boothby, Senior National Science Foundation fellowship
Pierre E. Conner, Sloan Foundation fellowship
Joanne Elliott, Senior National Science Foundation fellowship
John A. Ernest, National Science Foundation fellowship
Oscar Goldman, conditional on outside support
Arunas L. Liulevicius, National Science Foundation fellowship
Albert Nijenhuis, conditional on outside support
J. H. Sampson, Senior National Science Foundation fellowship
~~Jean-Pierre Serre (I), special funds~~
P. Emery Thomas (I), Air Force contract at Berkeley
H. C. Wang, Guggenheim Foundation fellowship
Joseph A. Wolf, conditional on National Science Foundation fellowship
Bertram Yood, National Science Foundation grant and sabbatical pay

Minutes of a meeting of the Faculty in Mathematics held March 8, 1961:

Present: Professors Beurling, Gödel, Montgomery, Morse, Oppenheimer, Selberg, Weil, and Whitney.

1. The Director reported on recent discussions with International Business Machines officials concerning a possible contribution from IBM of \$25,000, for five years, toward setting up a chair in applied mathematics. There will be further discussions with Dr. Piore at which Professors Beurling, Dyson, Montgomery, and Morse, if free, will attend. There was a consensus that the gift be accepted only if it corresponded with purposes of the Institute.

2. K. Chandrasekharan was voted membership during the fall term of 1961-62 with a grant of \$3,500. A reservation of \$500 will be made in case he is not able to obtain Fulbright aid for travel. If he is able to come for a different length of time, the grant will be adjusted accordingly. [The Director will write.]

3. It was voted not to offer membership during the academic year 1961-62 to Itiro Tamura. [Professor Whitney will write.]

4. It was voted to reserve the sum of \$11,000 for Bernard M. Dwork for the academic year 1961-62. He is considering using a Sloan Fellowship of something over \$6,000 during the summer of 1962. The amount of our grant will be determined later. [Professor Weil will notify him informally that funds are reserved.]

5. It was voted to reserve \$10,000 for Errett A. Bishop for the academic year 1961-62. The actual amount will depend on whether or not he will receive sabbatical pay. [Professor Montgomery will notify him informally that funds are reserved.]

6. It was voted to raise the grant for David B. A. Epstein to \$6,500, this sum to be available starting July 1, 1961. Epstein expects to receive at most \$700 from a contract at Princeton University during the summer of 1961; he could start receiving funds from the Institute after his connection with the University is terminated. [The Director will write.]

7. Jan Odhnoff was voted membership for the fall term of 1961-62. He has support through a Swedish fellowship. It is doubtful if the Institute will be able to furnish adequate housing for him and his family. [The Director will write.]

8. Georges Glaeser was voted membership for the academic year 1961-62. [The Director will write now to increase the possibility of Fulbright aid. Professor Whitney will write informally, requesting information. The size of the grant will be determined later.]

Hassler Whitney

Secretary

378.

Minutes of a meeting of the Faculty in Mathematics held March 24, 1961:

Present: Professors Beurling, Montgomery, Morse, Oppenheimer, Selberg, Weil and Whitney.

1. G. J. Rieger was voted visitor status during June 1961. He has outside support. [The Director will write.]

2. Richard Jerrard was voted visitor status during the summer of 1961. He expects support from a National Science Foundation contract. [The Director will write.]

3. It was voted to offer Georges Glaeser a grant of \$7,500 for 1961-62. \$500 will be reserved in case he is not awarded a Fulbright travel grant. [The Director will write.]

4. Leon Ehrenpreis was voted membership for the academic year 1961-62 with a salary of \$9,000 from a contract. [The Director will write.]

5. It was voted to give Lennart Carleson a grant of \$9,000 instead of a salary of \$8,000 from a contract. [The Director will write.]

6. Joseph J. Kohn was voted membership for the academic year 1961-62 with a grant of \$5,000 or a salary of \$6,100 from a contract. [The Director will write.]

7. Edwin H. Connell was voted membership for the academic year 1961-62 during his National Science Foundation fellowship. [The Director will write.]

8. Gerald E. Sacks was voted membership for the academic year 1961-62 during his National Science Foundation fellowship. [The Director will write.]

9. It was voted not to offer membership during 1961-62 to Richard H. Crowell. [Professor Whitney will write.]

10. It was voted not to offer membership during 1961-62 to Herbert S. Wilf. [Professor Whitney will write.]

11. Elon L. Lima was voted membership during the second term of 1961-62, conditional on his receiving a Guggenheim fellowship. If he receives the award, he will also be offered a grant of \$3,500 to supplement the award. (It is understood that this might carry him through the summer of 1962.) [The Director will write him that if a Guggenheim is awarded, membership will be given plus a small additional grant.]

12. Philip T. Church was voted membership for the second term of 1961-62. He has outside support, at least from sabbatical pay. [Professor Whitney will write informally; the Director formally.]

379.

13. Haskell Cohen was voted membership for the second term of 1961-62. He has outside support from sabbatical pay. [The Director will write.]

14. It was voted not to offer membership during 1961-62 to Allen Devinatz. This is largely because he is here this year and has been here during two years previously. [Professor Whitney will write.]

15. It was voted not to offer membership during 1961-62 to Adolf E. Nussbaum. [Professor Whitney will write.]

16. It was voted not to offer membership during 1961-62 to Norman L. Alling. [Professor Whitney will write.]

17. Prabir Roy was voted membership for the academic year 1961-62 with a grant of \$5,000. [The Director will write.]

18. Professor Selberg was elected to the position of Mathematical Executive and Secretary of the School of Mathematics.

Professor Gödel joined the meeting.

19. Georg Kreisel was given visitor status during September 1961. It was reported that Professor Gödel expects to offer him \$1,000 from his assistant fund for this visit. He also expects to offer a sum to Paul Bernays and perhaps to Kreisel for visits during June 1961. [Professor Gödel will notify both; the Director will write when arrangements are firm.]

20. The possibility of splitting the School of Mathematics into two schools was discussed briefly. It was decided to take up this question early in the fall with the complete School of Mathematics present.

Hassler Whitney

Secretary

1961-64

Professor Atle Selberg
Secretary

380.

Minutes of a meeting of the Faculty in Mathematics held April 3, 1961:

Present: Professors Beurling, Montgomery, Morse, Oppenheimer, Selberg and Whitney.

1. A. E. Nussbaum, who was rejected earlier for membership for the academic year 1961-62, has, in a recent letter, applied for membership either for the calendar year 1962 or the academic year 1962-63. It was voted to offer him membership for one of these periods, leaving the choice to him. [Professor Selberg will write informally; the Director formally when time is known.]

2. The Director reported briefly on negotiations with I.B.M.

Atle Selberg

Secretary

April 3, 1961
Appointments, 1961-1962

Appointments with Institute grants-in-aid:

Remaining from 1960-1961	\$63,058.87
Expected appropriation for 1961-1962	<u>75,000.00</u>
	\$138,058.87

J. Frank Adams (I)	\$3,000.00
François Bruhat (I)	4,000.00
Lennart Carleson	9,000.00
K. Chandrasekharan (I)	3,500.00
Hubert Delange (I)	3,500.00
David B. A. Epstein	6,500.00
Carl C. Faith	6,000.00
Georges Glaeser	7,500.00
Irving L. Glicksberg	6,000.00
Tatsuo Homma	6,000.00
Nagayoshi Iwahori	5,500.00
Joseph J. Kohn (or contract)	5,000.00
Michio Kuga	5,800.00
Mieo Nishi	5,800.00
K. G. Ramanathan	6,500.00
Prabir Roy	5,000.00
Mikio Sato	5,000.00
Rolph Schwarzenberger	5,500.00
Jean-Pierre Serre (I)	7,000.00

Tonny A. Springer	6,000.00	
William W. Tait, III	5,800.00	
Costake Teleman	5,500.00	
René Thom (I)	4,500.00	
E. Christopher Zeeman (I)	<u>3,500.00</u>	\$131,400.00

Reservations:

Errett A. Bishop	\$10,000.00		
K. Chandrasekharan (I)	500.00		
Harish-Chandra	15,000.00		
Bernard M. Dwork	11,000.00		
Georges Glaeser	500.00		
Leon Henkin	5,000.00		
Elon L. Lima (II) (+ Gugg.)	3,500.00		
Rolph Schwarzenberger	500.00		
C. T. Yang	<u>6,000.00</u>	<u>52,000.00</u>	<u>183,400.00</u>
			\$45,341.13

Assistant funds:

Paul Bernays (June '61)(Gödel transfer to Visitors Fund)	-----
Enzo R. Gentile (Montgomery)	\$6,000.00
Georg Kreisel (Sept. '61)(Gödel transfer to Visitors Fund)	1,000.00
Hans Reiter (Weil transfer to grants)	5,000.00

Contract reservations:

Jacques Deny (II)	\$ 5,500.00
Leon Ehrenpreis	9,000.00
James A. Jenkins	15,000.00
Joseph J. Kohn (or grant)	6,100.00
John R. Stallings	8,000.00
Robert Steinberg	10,000.00

Appointments with other sources of funds:

Robert M. Blumenthal, National Science Foundation fellowship
William M. Boothby, Senior NSF fellowship
Morton Brown, NSF fellowship
Philip T. Church (II), sabbatical pay
Haskell Cohen (II), sabbatical pay
Edwin H. Connell, NSF fellowship
Pierre E. Conner, Sloan Foundation fellowship
Joanne Elliott, Senior NSF fellowship
John A. Ernest, NSF fellowship
Oscar Goldman, NSF grant through Brandeis University
Arunas L. Liulevicius, NSF fellowship
Albert Nijenhuis, conditional on outside support
A. Edward Nussbaum (II)(calendar 1962, or academic 1962-63) NSF fellowship
Jan Odhnoff (I), Swedish fellowship
Gerald E. Sacks, NSF fellowship
J. H. Sampson, Senior NSF fellowship
P. Emery Thomas (I), Air Force contract at Berkeley
H. C. Wang, Guggenheim Foundation fellowship
Joseph A. Wolf, NSF fellowship
Bertram Yood, NSF grant and sabbatical pay

381.

Minutes of a meeting of the Faculty in Mathematics held April 17, 1961:

Present: Professors Beurling, Gödel, Montgomery, Morse, Oppenheimer, Selberg and Whitney.

1. It was voted not to offer membership to Ratan S. Mishra.

[Professor Selberg will write.]

2. Samuel Zaidman was voted membership for the calendar year 1962 with a grant of \$5,500. [Professor Selberg will write informally; the Director formally.]

3. It was agreed to accept Barry C. Mazur as a visitor next December and January, and to offer him a grant of \$750. [Professor Selberg will write informally; the Director formally.]

4. It was agreed that the Director and Professor Morse call to the attention of the National Science Foundation the economic hardships experienced by many National Science Foundation fellows under present conditions.

5. It was voted to reserve \$1,000 for Morton Brown for the academic year 1961-62. [The Director will write when outcome is known.]

6. It was voted to reserve \$2,000 for Robert F. Williams for the summer of 1961 to be given him in case the National Science Foundation does not grant him an extension of his fellowship for this period, and to give him \$500 in case the extension is granted. [Professor Selberg will talk to Williams; the Director will write when the outcome is known.]

7. It was voted to raise Carl C. Faith's grant by \$1,000. [The Director will write.]

8. It was agreed that Professors Montgomery and Selberg will talk to Robert A. Bonic to inquire about his situation and report their findings to the Director, and further, that an amount of up to \$1,000 could be given him, without any new Faculty vote, if it seems appropriate to these three. [The Director will write in case a grant is made.]

9. The question of raising family allowances was discussed.

Atle Selberg

Secretary

April 17, 1961
Appointments, 1961-1962

Appointments with Institute grants-in-aid:

Remaining from 1960-1961	\$63,058.87
Expected appropriation for 1961-1962	<u>75,000.00</u>

\$138,058.87

J. Frank Adams (I)	\$3,000.00	
François Bruhat (I)	4,000.00	
Lennart Carleson	9,000.00	
K. Chandrasekharan (I)	2,500.00	
Hubert Delange (I)	3,500.00	
David B. A. Epstein	6,500.00	
Carl C. Faith	7,000.00	
Georges Glaeser	7,500.00	
Irving L. Glicksberg	6,000.00	
Tatsuo Homma	6,000.00	
Nagayoshi Iwahori	5,500.00	
Joseph J. Kohn (or contract)	5,000.00	
Michio Kuga	5,800.00	
Barry C. Mazur (visit Dec.-Jan.)	750.00	
Mieo Nishi	5,800.00	
K. G. Ramanathan	6,500.00	
Prabir Roy	5,000.00	
Mikio Sato	5,000.00	
Rolph Schwarzenberger	5,500.00	
Jean-Pierre Serre (I)	7,000.00	
Tonny A. Springer	6,000.00	
William W. Tait, III	5,800.00	
Costake Teleman	5,500.00	
René Thom (I)	4,500.00	
Samuel Zaidman (calendar 1962)	5,500.00	
E. Christopher Zeeman (I)	<u>3,500.00</u>	\$137,650.00

Reservations:

Errett A. Bishop	\$10,000.00	
Robert A. Bonic (summer 1961)	1,000.00	
Morton Brown	1,000.00	
Harish-Chandra	15,000.00	
Bernard M. Dwork	11,000.00	
Georges Glaeser	500.00	
Leon Henkin	5,000.00	
Elon L. Lima (II)(+ Gugg.)	3,500.00	
Rolph Schwarzenberger	500.00	
Robert F. Williams (summer 1961)	2,000.00	
C. T. Yang	<u>6,000.00</u>	<u>55,500.00</u>
		<u>193,150.00</u>

\$-55,091.13

Assistant funds:

Paul Bernays (June '61)(Gödel transfer to Visitors Fund)	-----
Enzo R. Gentile (Montgomery)	\$6,000.00
Georg Kreisel (Sept. '61)(Gödel transfer to Visitors Fund)	1,000.00
Hans Reiter (Weil transfer to grants)	5,000.00

Contract reservations:

Jacques Deny (II)	\$ 5,500.00
Leon Ehrenpreis	9,000.00
James A. Jenkins	15,000.00
Joseph J. Kohn (or grant)	6,100.00
John R. Stallings	8,000.00
Robert Steinberg	10,000.00

Appointments with other sources of funds:

Robert M. Blumenthal, National Science Foundation fellowship
William M. Boothby, Senior NSF fellowship
Morton Brown, NSF fellowship
Philip T. Church (II), sabbatical pay
Haskell Cohen (II), sabbatical pay
Edwin H. Connell, NSF fellowship
Pierre E. Conner, Sloan Foundation fellowship
Joanne Elliott, Senior NSF fellowship
John A. Ernest, NSF fellowship
Oscar Goldman, NSF grant through Brandeis University
Arunas L. Liulevicius, NSF fellowship
Albert Nijenhuis, conditional on outside support
A. Edward Nussbaum (calendar 1962) NSF fellowship
Jan Odhnoff (I), Swedish fellowship
Gerald E. Sacks, NSF fellowship
J. H. Sampson, Senior NSF fellowship
P. Emery Thomas (I), Air Force contract at Berkeley
H. C. Wang, Guggenheim Foundation fellowship
Joseph A. Wolf, NSF fellowship
Bertram Yood, NSF grant and sabbatical pay

382.

Minutes of a meeting of the Faculty in Mathematics held May 25, 1961:

Present: Professors Beurling, Montgomery, Morse, Oppenheimer and Selberg.

1. It was voted to give membership to Kuo-Tsai Chen for the second term of 1961-62 with a grant of \$4,000, and to give him \$1,000 extra if he stays for a substantial part of the summer. [The Director will write.]

2. It was agreed to invite O. Ladyzenskaja for as much of a year as she can come with the same conditions that were offered in 1958 (\$2,000 a month for the duration of her visit). The invitation will first be sent to Ladyzenskaja personally so that if she is interested she may indicate through what official channels a more formal invitation ought to be sent and for what period she would like to be invited. [Professor Selberg will write.]

3. It was agreed that Professor Selberg write Leon Ehrenpreis asking him to clarify to us his financial situation for next year.

Atle Selberg

Secretary

May 25, 1961
Appointments, 1961-1962

Appointments with Institute grants-in-aid:

Remaining from 1960-1961	\$61,058.87
Expected appropriation for 1961-1962	<u>75,000.00</u>

\$136,058.87

J. Frank Adams (I)	\$3,000.00	
François Bruhat (I)	4,000.00	
Lennart Carleson	9,000.00	
K. Chandrasekharan (I)	2,500.00	
Kuo-Tsai Chen (II)	4,000.00	
Hubert Delange (I)	3,500.00	
David B. A. Epstein	6,500.00	
Carl C. Faith	7,000.00	
Georges Glaeser	7,500.00	
Irving L. Glicksberg	6,000.00	
Tatsuo Homma	6,000.00	
Nagayoshi Iwahori	5,500.00	
Joseph J. Kohn (or contract)	5,000.00	
Michio Kuga	5,800.00	
Barry C. Mazur (visit Dec.-Jan.)	750.00	
Mieo Nishi	5,800.00	
K. G. Ramanathan	6,500.00	
Prabir Roy	5,000.00	
Mikio Sato	5,000.00	
Rolph Schwarzenberger	5,500.00	
Jean-Pierre Serre (I)	7,000.00	
Tonny A. Springer	6,000.00	
William W. Tait, III	5,800.00	
Costake Teleman	5,500.00	
René Thom (I)	4,500.00	
Samuel Zaidman (calendar 1962)	5,500.00	
E. Christopher Zeeman (I)	<u>3,500.00</u>	\$141,650.00

Reservations:

Errett A. Bishop (+ sabb.)	\$ 3,200.00		
Harish-Chandra	15,000.00		
Kuo-Tsai Chen (summer 1962)	1,000.00		
Bernard M. Dwork	11,000.00		
Georges Glaeser	500.00		
O. Ladyzenskaja (per month)	2,000.00		
Elon L. Lima (II)(+ Gugg.)	3,500.00		
Rolph Schwarzenberger	500.00		
C. T. Yang	<u>6,000.00</u>	<u>42,700.00</u>	<u>\$184,350.00</u>

\$-48,291.13

Assistant funds:

Enzo R. Gentile (Montgomery)	\$6,000.00
Georg Kreisel (Sept. '61)(Gödel transfer to Visitors Fund)	1,000.00
Hans Reiter (Weil transfer to grants)	5,000.00

Contract reservations:

Jacques Deny (II)	\$ 5,500.00
Leon Ehrenpreis	9,000.00
James A. Jenkins	15,000.00
Joseph J. Kohn (or grant)	6,100.00
John R. Stallings	8,000.00
Robert Steinberg	10,000.00

Appointments with other sources of funds:

Robert M. Blumenthal, National Science Foundation fellowship
William M. Boothby, Senior NSF fellowship
Morton Brown, NSF fellowship
Philip T. Church (II), sabbatical pay
Haskell Cohen (II), sabbatical pay
Edwin H. Connell, NSF fellowship
Pierre E. Conner, Sloan Foundation fellowship
Joanne Elliott (I), Senior NSF fellowship
John A. Ernest, NSF fellowship
Oscar Goldman, NSF grant through Brandeis University
Leon Henkin, Guggenheim fellowship and sabbatical pay
Arunas L. Liulevicius, NSF fellowship
Albert Nijenhuis, Guggenheim fellowship
A. Edward Nussbaum (calendar 1962) NSF fellowship
Jan Odhnoff (I), Swedish fellowship
Gerald E. Sacks, NSF fellowship
J. H. Sampson, Senior NSF fellowship
P. Emery Thomas (I), Air Force contract at Berkeley
H. C. Wang, Guggenheim fellowship
Joseph A. Wolf, NSF fellowship
Bertram Yood, NSF grant and sabbatical pay

383.

Minutes of a meeting of the Faculty in Mathematics held September 20, 1961:

Present: Professors Beurling, Borel, Gödel, Montgomery, Selberg, Weil,
and Whitney.

1. It was voted to offer John Nash membership for the academic
year 1961-62 with a grant of \$8,000. [The Director will notify.]

2. It was agreed to decline the application of Olof Hanner.
[Professor Selberg will write.]

Atle Selberg

Secretary

Minutes of a meeting of the Faculty in Mathematics held November 1, 1961:

Present: Professors Beurling, Borel, Gödel, Montgomery, Morse, Oppenheimer, Selberg, Weil and Whitney.

1. It was agreed not to offer membership to Samuel G. Bourne. [Professor Selberg will write.]

2. It was voted to offer Elon L. Lima membership for the academic year 1962-63 and to reserve \$6,000 for him now, the final size of the grant to be determined after we have received more information about his needs and his support from other sources. [Professor Selberg will write informally.]

3. It was agreed to invite O. Ladyzenskaja, giving the choice of the academic year 1962-63 or either of the two terms in 1962-63, or the spring term this year, 1961-62. [The Director will send the official letter to M. V. Keldysh, President of the Academy of Sciences, Moscow. [Professor Selberg will write to Ladyzenskaja informally.]

4. It was voted to give K. G. Ramanathan a supplementary grant of \$500 this year to aid in meeting recent unusual medical expenses. His total grant will now be \$7,000, the supplementary \$500 being paid from the NSF Grant in Algebra and Topology (GL4779). [The Director will write.]

5. It was agreed to reserve funds for R. H. Bing to enable him to come to the Institute without financial sacrifice. [Professor Montgomery will write him informally asking for further information as to his needs.]

6. Siegfried Moran was voted membership for the academic year 1962-63 with a grant of \$6,000. [The Director will write.]

7. James Eells was voted membership for the academic year 1962-63 and funds in the amount of \$10,000. (Whether these funds are in the form of a grant or a salary will be decided later.) [The Director will write.]

8. It was agreed to offer D. Russell McMillan, Jr. membership for the academic year 1962-63 conditional on his receiving an NSF fellowship. (Housing should be reserved now.) [The Director will write.]

9. Heisuke Hironaka was voted membership for the academic year 1962-63, the size of his grant to be determined after more information has been obtained concerning his situation. [Professor Weil will inquire.]

10. Stewart S. Cairns was voted membership for the academic year 1962-63. He will receive financial support from an NSF grant through the University of Illinois and sabbatical pay. [The Director will write.]

385.

11. It was agreed that when voting conditional membership it should in each case be decided whether housing should be reserved from that time or only from the time the membership becomes final.

12. The Director reported on the IBM donation for a von Neumann professorship.

Atle Selberg

Secretary

386.

Minutes of a meeting of the Faculty in Mathematics held November 14, 1961:

Present: Professors Beurling, Borel, Gödel, Montgomery, Morse, Oppenheimer, Selberg, Weil and Whitney.

1. It was agreed to invite Roger Godement as a member for the remaining part of the academic year of his university or as much of it as he finds suitable. It was further agreed to make available \$2,000 per month for the period he is here. (The Director's cable, approved by the Faculty, has been sent.)

2. The matter of the National Science Foundation proposals was discussed. It was agreed not to change the form of the proposals for the time being.

Atle Selberg

Secretary

ADDENDUM: Cable sent to Professor Godement on November 14, 1961:

Roger Godement
Institut Henri Poincaré
11 rue Pierre Curie
Paris

It occurs to us that this may be a time when we could fulfill our long-standing hope of having you with us at the Institute for Advanced Study. Would be glad to have you come as soon as possible and stay for the whole of your academic year or as much of it as you can. Can discuss financial problems in detail later but now agree to make available not less than two thousand dollars a month for the period you are here. We hope that you may come. Best wishes,

Robert Oppenheimer

387.

Minutes of a meeting of the Faculty in Mathematics held Friday, December 8, 1961:

Present: Professors Beurling, Borel, Gödel, Montgomery, Morse, Oppenheimer, Selberg, Weil and Whitney.

1. R. H. Bing was voted membership for the academic year 1962-63 and a grant or salary of \$10,000. [The Director will write.]

2. It was voted to give Elon Lima a grant of \$6,000 to supplement the Guggenheim Fellowship he will hold during the academic year 1962-63. [The Director will write.]

3. It was agreed to offer Roger Godement \$2,000 a month for five months beginning in January 1962 and \$2,000 for travel expenses. [The Director will write.]

4. Membership was voted for the second term of 1961-62 for Herman Gluck (holding a National Academy of Sciences Postdoctoral Fellowship) and Wimberly C. Royster (with a National Science Foundation grant through the University of Kentucky) with Dr. Gluck to be given the priority on housing. [The Director will write.]

5. Yozo Matsushima was voted membership for the academic year 1962-63 and a reservation was made of \$10,000, the actual size of the grant to be determined when more information has been received. [Professor Weil will write.]

6. Elias M. Stein was voted membership for the academic year 1962-63 during his Sloan and National Science Foundation fellowships. [The Director will write.]

7. Jacques Tits was voted membership for the second term of the 1962-63 academic year with a grant of \$5,000. [The Director will write.]

8. It was agreed to give membership to Anil Nerode for the academic year 1962-63 conditional on the National Science Foundation granting funds to Cornell University for his use. Housing is to be reserved. [The Director will write.]

9. It was agreed to give membership to Edwin E. Floyd for the academic year 1963-64 conditional on his receiving a Sloan Foundation fellowship. Housing is to be reserved. [The Director will write.]

10. It was voted to give membership to Robert P. Langlands for the academic year 1962-63 and to make a reservation of \$7,000, the actual amount of his grant or salary to be determined later. [Professor Selberg will write.]

11. It was agreed to decline the applications of Israel Halperin, Jack E. Ohm and B. Ramachandran. [Professor Selberg will write.]

12. It was agreed to postpone the consideration of Georg Kreisel until more information has been obtained.

Atle Selberg

Secretary

Minutes of a meeting of the Faculty of the School of Mathematics held
January 11, 1962:

Present: Professors Beurling, Borel, Dyson, Gödel, Montgomery, Morse,
Oppenheimer, Pais, Selberg, Strömbergren, Weil, Whitney, and Yang.

1. Selberg reported that the mathematicians had unanimously agreed to propose John W. Milnor, presently Professor of Mathematics at Princeton University, for a faculty appointment.

2. Borel gave an account and evaluation of Milnor's contributions to mathematics. At the end Weil, Morse and Montgomery added some remarks commenting, among other things, upon Milnor's abilities as a lecturer and teacher.

3. The discussion that followed dealt almost exclusively with questions raised by Milnor's connection with Princeton University. As it was agreed that a meeting of the full Faculty of the Institute would be the proper forum for a full discussion of the basic problem of Institute-University relations involved, this discussion was essentially limited to the reaction of and consequences for the Mathematics Department at the University.

Apprehensions were voiced by several of the physicists. Yang said he would be very reluctant to take a similar step in physics; the Director stated that it had never occurred to them to consider a physicist at the University, and Dyson felt uneasy that this step "could lead to an explosion". Strömbergren thought on the other hand that it might be good to demonstrate that a faculty member at Princeton was not automatically barred from consideration for a faculty appointment at the Institute and found the present case a good one for this purpose.

Morse pointed out the danger of a general rule and said that each case had to be considered independently, what was right and proper in one individual case might not necessarily be so in another. It was further stressed by the mathematicians in the School that they had seriously considered the effects an offer to Milnor might have on our relations with the Mathematics Department at the University. In the first place they felt that in this case such a move would not be harmful to the Mathematics Department, a resulting new appointment at the University would actually strengthen the mathematical community in Princeton. It was also pointed out that this move would not come as a surprise to their colleagues at the University, as some of these, aware that an appointment in Mathematics might now be under consideration at the Institute in view of the fact that Morse is retiring at the end of this

389.

academic year, had made remarks to the effect that they assumed Milnor would be among those considered. Montgomery quoted the Chairman of the Mathematics Department as having told him that he would feel unhappy if Milnor was excluded because of his affiliation with the University. It was pointed out by Weil that if Milnor is given an offer by the Institute it is by no means certain that he will accept.

The Director confirmed that there exists no formal or written agreement between the Institute and the University that would be violated by offering an appointment to Milnor. He felt, however, that he ought to inform President Goheen of this matter before it is brought to the Trustees of the Institute. Weil thought it would be more appropriate that Goheen be approached only after Milnor has received an offer. He also mentioned that the Dean of the Graduate School of the University apparently was aware that this might be under way.

Pais raised the question of obtaining letters from the outside about Milnor's merits. Weil and Whitney felt that such letters were not needed in this case, but could be sought later if some members of the Faculty should so desire. The Director expressed the view that a letter or letters from a member or members of the Mathematics Department at the University stating that this would not be resented by them, would be helpful. Weil thought that verbal assurances to this effect were more appropriate.

4. The following motion was formulated by the Director and then adopted unanimously:

The non-mathematicians in the School have been convinced by their mathematical colleagues that their unanimous choice of Milnor is on scientific grounds unassailable. They have also been persuaded that in general the mathematicians at the University would be more disturbed by Milnor's being automatically disqualified, because he is a member of the University Faculty, than by his appointment here being considered on its merits. The mathematicians further believe that Milnor's appointment, if accepted, will have no detrimental effect on the mathematical community in general and hope that it will have a good one. For these reasons the School unanimously brings the matter before the Faculty.

5. It was decided that all Faculty members who plan to participate in the International Congress of Mathematicians in Stockholm, Sweden, this summer will be named as Delegates by the Institute.

390.

6. The Director reported on a conversation with Fedorov, Secretary of the U.S.S.R. Academy of Sciences, where the difficulties encountered by the Institute in inviting Russian scientists had been discussed.

Atle Selberg

Secretary

Minutes of a meeting of the Faculty in Mathematics held January 19, 1962:

Present: Professors Beurling, Borel, Gödel, Montgomery, Morse, Oppenheimer, Selberg, Weil and Whitney.

1. It was agreed to propose Professor Borel as the new member of the Library Committee at the next Faculty meeting.
2. It was agreed to offer Robert P. Langlands a salary of \$7,750 from a contract. [The Director will write.]
3. It was voted to offer Yozo Matsushima \$8,000. [The Director will write.]
4. It was agreed to reserve \$9,000 for Heisuke Hironaka. The final amount to be given him will be decided when more information comes in. [Professor Weil will inquire.]
5. It was voted to welcome Yukiyosi Kawada as a visitor in October 1962, with a grant of \$500. [The Director will write.]
6. Michio Kuga was voted membership for the next academic year, his grant to be decided after more information is obtained about his family status. [Professor Selberg will inquire.]
7. A. H. Taub was voted membership for the academic year 1962-63 during his sabbatical leave. [The Director will write.]
8. Michio Suzuki was voted membership for the academic year 1962-63. It was agreed to reserve \$9,000 in case he does not obtain sufficient support from other sources. [The Director will write.]
9. Ray A. Kunze was voted membership for the academic year 1962-63. It was agreed to reserve \$9,000 now, and inquire about his needs. [Professor Selberg will inquire.]
10. C. E. Burgess was voted membership for the academic year 1962-63 and a grant or salary of \$6,000. [The Director will write.]
11. It was voted to give membership for the academic year 1962-63 to Edgar H. Brown, Jr. (holding National Science Foundation Postdoctoral Fellowship), C. C. Chang (with Senior National Science Foundation Fellowship), Robert Ellis, (National Science Foundation Postdoctoral Fellowship), David B. Mumford (Sloan Foundation Fellowship), C. J. Neugebauer (on sabbatical leave), and Brian F. Steer (North Atlantic Treaty Organization Fellowship). [The Director will write.]
12. P. A. Griffiths was voted membership for the academic year 1962-63, conditional on his obtaining an NSF fellowship. Housing is to be reserved now. [The Director will write.]

392.

13. Isaac Namioka was voted membership for the academic year 1962-63 conditional on his obtaining support. Housing is to be reserved now. [The Director will write.]

14. It was decided by majority vote not to offer membership to Georg Kreisel for the second term of the academic year 1962-63. (Professor Gödel wants it recorded that he voted in favor of membership. Since no formal application has been received, no official letter of declination is necessary.)

15. It was voted to decline the applications from Kurt Bing, Gregory M. Kelly, R. J. Knill, W. C. Whitten, Jr., and E. F. Whittlesey. [Professor Selberg will write.]

16. It was agreed to postpone the consideration of applications from S. Kantorovitz, M. Kondô and Marian B. Pour-El.

Atle Selberg

Secretary

Minutes of a meeting of the Faculty in Mathematics held March 7, 1962:

Present: Professors Beurling, Borel, Gödel, Montgomery, Morse, Oppenheimer, Selberg, Weil and Whitney.

1. It was agreed to raise the present minimum standards for grants and assistants' salaries by \$500 per year effective from the beginning of the academic year 1962-63.

<u>Marital Status</u>	<u>Grant</u>	<u>Salary</u>
Single	\$5,500	\$6,300
Married	6,000	6,700
One child	6,300	7,000
More children	6,500	7,200

2. It was agreed to offer M. Kuga a grant of \$6,500 for the academic year 1962-63. [The Director will write.]

3. It was agreed to offer R. A. Kunze a salary of \$9,000 from a contract for the academic year 1962-63. [The Director will write.]

4. It was agreed to welcome J-P. Serre as a visitor for one month during the first term of the academic year 1962-63 with a grant of \$2,500 for this period. [The Director will write.]

5. It was agreed to decline T. Homma's request for extension of his membership and an additional grant during the summer of 1962, but to tell him that he is welcome to stay for such part of the summer as he finds suitable. [Professor Selberg will write.]

6. S. Kantorovitz was voted membership for the academic year 1962-63 with a grant of \$6,300. [The Director will write.]

7. H. Radjavi was voted membership for the academic year with a grant of \$5,500. [The Director will write.]

8. H. Shimizu was voted membership for the academic year 1962-63 with a grant of \$5,500. He should be asked to let us know if he is not successful in obtaining Fulbright aid for travel. [The Director will write.]

9. M. T. Klemola was voted membership for the academic year 1962-63, with a grant of \$6,500. [The Director will write.]

10. M. Kondô was voted membership for the academic year 1962-63 with a grant of \$6,300. [The Director will write.]

11. It was agreed to offer I. Namioka a grant of \$4,125 for the second term of the academic year 1962-63, with the understanding that he has obtained other support for the first term. [The Director will write.]

394.

12. It was agreed to decline the application of Prabir Roy for membership and a grant for the academic year 1962-63. [Professor Selberg will write.]

13. A. A. Kosinski was voted membership for the academic year 1962-63. It was further agreed to offer him a grant or salary equal to the amount of his normal academic salary which will not be covered by his sabbatical pay. [Professor Selberg will write.]

14. R. C. James was voted membership for the academic year 1962-63. He should be asked to let us know if he is not successful in getting National Science Foundation support to supplement his sabbatical pay. [The Director will write.]

15. L. Solomon was voted membership for the academic year 1962-63. He should be asked to let us know if he is not successful in obtaining additional outside support. It was agreed to reserve \$4,000 for him. [The Director will write.]

16. It was agreed to decline the application of E. Matlis. [Professor Selberg will write.]

17. It was agreed that multilithing of manuscripts for temporary members would, apart from the cases when they are on a contract that makes it mandatory, only be done when authorized by a member of the Faculty. It was further agreed that a list be kept by one of the secretaries of the School to keep track of the number and establish the order of processing.

Atle Selberg
Secretary

Minutes of a meeting of the Faculty in Mathematics held April 16, 1962:

Present: Professors Borel, Gödel, Montgomery, Morse, Selberg, Weil and Whitney.

1. It was decided to offer membership for the academic year 1962-63 to H. Edwards, J. M. Martin and A. T. Vasquez, all of whom have received National Science Foundation Fellowships. [The Director will write.]

2. It was decided to offer membership for the academic year 1962-63 with the standard grant (or salary) to the following applicants that had been turned down for National Science Foundation Fellowships: L. S. Charlap, W. B. Giles and D. S. Gillman. They are all single so the standard grant would be \$5,500, salary \$6,300. [The Director will write.]

3. J. M. Kister, also turned down by the National Science Foundation, was voted membership for the academic year 1962-63 with a grant of \$7,000. [The Director will write.]

4. C. Goffman was voted membership for the academic year 1962-63. He has sufficient financial support from outside. [The Director will write.]

5. E. Matlis was voted membership for the academic year 1962-63. He has sufficient financial support from outside. [The Director will write.]

6. S. Kantorovitz was voted membership for the academic year 1963-64 with the standard grant (or salary). This would be \$6,300 if grant, \$7,000 if salary. It was agreed that this might possibly be adjusted upwards sometime next year if circumstances seem to justify it. [The Director will write.]

7. M. Pour-El was voted membership for the academic year 1962-63, and a standard grant reserved in case her application for an American Association of University Women Fellowship is unsuccessful. It was also agreed to supplement the AAUW Fellowship in case it is lower than the standard grant, in her case \$6,000. [Professor Selberg will write.]

8. It was agreed to welcome V. S. Krishnan as a visitor during September 1962 with a grant of \$200 for this period. [The Director will write.]

9. It was agreed to welcome M. Gerstenhaber as a visitor during the summer of 1962 from mid-June to mid-September. Housing and office space are the only things involved. [The Director will write.]

10. It was agreed to welcome Walter L. Baily (University of Chicago) as a visitor for one month, from mid-January to mid-February 1963 with a grant of \$800. [The Director will write.]

396.

11. It was decided to offer L. Ahlfors membership for the academic year 1962-63, and to offer him a salary equal to his normal academic salary. [Professor Selberg will write informally.]

12. Selberg raised the question of having an annual quota for Logic and the Foundations of Mathematics, in the form of four memberships with standard grants in addition to Gödel's assistantship, so that appointments within this limit would not need to be discussed by the other mathematicians on the Faculty. Since there was some opposition to a formal recognition of such a quota, it was agreed informally that appointments within this limit would not be questioned unless someone found strong reason for doing so.

13. The question of applications for new contracts to the National Science Foundation and the Army Research Office was discussed. It was agreed to apply to the NSF for two contracts of the same amounts as last spring and for a term of $4\frac{1}{2}$ years. It was further agreed to apply to the Army Research Office for a contract of about \$20,000. The area to be covered would be left for Professor Selberg to decide.

14. It was agreed to decline the applications of T. J. Head, J. P. Hempel, G. W. Henderson, Wu-Chung Hsiang, J. H. Stoddard, W. A. Strauss and Ta-Sun Wu. [Professor Selberg will write.]

15. It was agreed not to do anything about W. R. Alford. (Since there is no formal application, no formal letter of declination is required.) It was further agreed to postpone the consideration of the application of M. Sion.

Atle Selberg

Secretary

Minutes of a meeting of the Faculty in Mathematics held November 2, 1962:

Present: Professors Beurling, Borel, Gödel, Montgomery, Selberg, Weil and Whitney.

1. It was agreed to raise Heisuke Hironaka's grant for the academic year 1962-63 by \$1,000 to a total of \$10,000. [The Director will write.]

2. The matter of Harish-Chandra's T.I.A.A. for the academic year 1961-62 was discussed. Since it was felt that it was rather the responsibility of Columbia University to pay, it was agreed to communicate this to Eilenberg. It was further agreed that in case Columbia does not pay, we would supply Harish-Chandra with the \$780-T.I.A.A. contribution that is now missing. [Professor Selberg will write to Eilenberg.]

3. Professor Beurling reported on a meeting of the Faculty in Mathematics that had been held earlier, in the absence of Professor Selberg, at which it had been agreed to invite Henrik L. Selberg for the academic year 1963-64 and to make a reservation of \$10,000 at this time. [Professor Beurling will correspond.]

4. It was agreed to invite Karol Borsuk for the academic year 1963-64 and reserve \$10,000 for him at this time. [Professor Montgomery will write.]

5. It was agreed to invite Martin Kneser for the academic year 1963-64 with a grant or salary of \$12,000. [The Director will write.]

6. It was agreed to offer Swierczkowski membership for the academic year 1963-64 with the standard grant. [Professor Weil will write and obtain information.]

7. It was agreed to raise the standard grants by \$500 for the academic year 1963-64.

8. It was agreed to offer Gaisi Takeuti membership for the academic year 1963-64 with a grant or salary of \$8,000. [The Director will write.]

9. It was agreed to offer William Browder membership for the academic year 1963-64 and to offer him half his salary at this time, asking him to notify us in case Cornell does not give him the other half. It was further agreed to make a reservation now of his full salary of \$11,000. [The Director will write.]

10. Jürgen Moser was discussed. It was agreed that Professor Weil should get more information as to his plans and needs.

11. It was agreed to offer Valentin Poénaru membership for the second term of the academic year 1963-64 and the first term of the academic year 1964-65, and to offer him \$3,500 per term. [The Director will write.]

398.

12. It was agreed to offer William B. Giles membership for the academic year 1963-64 with the standard grant of \$6,500. [The Director will write.]

13. It was agreed to offer Edward R. Fadell membership for the academic year 1963-64. He is arranging for outside funds. [The Director will write.]

14. It was agreed to offer I. J. Schoenberg membership for the academic year 1963-64. He is arranging for outside funds. [The Director will write.]

15. It was agreed to postpone the consideration of Brian J. Sanderson until we have heard from Atiyah about him.

16. It was agreed that we would offer Richard S. Palais membership for the academic year 1963-64 when and if he applies for it.

17. Professor Selberg reported on conversations in Stockholm with Ladyzenskaja and with academicians Lavrientieff and Kolmogorov. It was agreed to send a new invitation to Ladyzenskaja through the same channels as before. This invitation would be for any period of time not less than a month and not more than an academic year, which would be suitable for her, during the second term of the academic year 1962-63 or during the academic year 1963-64. Conditions would otherwise be as in the previous invitation. It was understood that if this new invitation leads to no results, no further efforts would be made by us to invite mathematicians from the Soviet Union unless we see signs of a changed attitude. [The Director will send the formal invitation. Professor Selberg will write Ladyzenskaja informally.]

18. In discussing whether the Institute would want a visit from K. Chandrasekharan for a period of 4-5 days in the spring of 1963 as part of his program as an AMS Visiting Lecturer, it was agreed that we would prefer that he come for a longer period up to one month. [Professor Selberg will write and find out if and when this would be possible.]

19. The Members' Seminar in Mathematics (conducted by Morse in earlier years) was discussed. It was agreed that it should be continued.

20. Professor Selberg reported briefly on the plan for a large seminar room in connection with the latest library plans.

21. It was agreed to start informal discussions sometime this term of possible candidates for Faculty appointment in Mathematics.

Atle Selberg

Secretary

399.

Minutes of a meeting of the Faculty in Mathematics held December 14, 1962:

Present: Professors Beurling, Borel, Gödel, Montgomery, Selberg, Weil and Whitney.

1. It was agreed that during Professor Weil's absence next term Professor Borel would advise the Library on acquisition.

2. Professor Selberg reported that he had been approached by Professor L. Bers, Chairman of the Mathematics Department at New York University, concerning participation by the Institute in a joint invitation to Academician Lavrientieff in which about five or six institutions in this country would participate.

(Berkeley and Harvard have already expressed interest in this arrangement.)

It was agreed to authorize Professor Selberg to act in this matter without further consultation with the Faculty, as long as the visit to the Institute would be not longer than two weeks and the economic commitment would be in line with those of the other institutions participating in the arrangement. [Selberg will communicate with Bers.]

3. Professor Selberg reported on a telephone conversation with Gordon L. Walker, Executive Director of the American Mathematical Society, in which a tentative agreement had been made that Chandrasekharan would visit here from April 22 to May 8, 1963, and again from June 15 to the end of June, 1963. According to Gordon Walker the A.M.S. would prefer to foot the bill for this.

4. It was decided to invite Karol Borsuk officially for a term or a year. At a meeting on December 17, 1962, this decision was revoked in view of a letter received by Professor Montgomery in which Borsuk told about his changed plans. Instead it was agreed to welcome Borsuk as a visitor for a period of one month sometime during the next academic year, offering him \$1,000 for this period. [Montgomery will write.]

5. B. J. Sanderson was voted membership for the academic year 1963-64 with a grant of \$6,500. [The Director will write.]

6. Weishu Shih was voted membership for the academic year 1963-64 with a grant of \$6,800. In addition he was voted \$500 for travel. [The Director will write.]

7. F. J. Almgren, Jr. was voted membership for the academic year 1963-64 with a grant of \$6,800. [The Director will write.]

8. C. R. Curjel was voted membership for the academic year 1963-64 with a grant of \$3,500. He should be asked to let us know if he does not receive the other half of his support. [The Director will write.]

400.

9. Bernard Maskit was voted membership for the academic year 1963-64 with a grant of \$7,000. [The Director will write.]

10. D. E. Sarason was voted membership for the academic year 1963-64. He should be asked to let us know if he is not successful with his application for a National Science Foundation fellowship. [The Director will write.]

11. The following present members were voted membership for the academic year 1963-64 with grants as shown:

L. S. Charlap	\$6,000
D. S. Gillman	6,000
J. M. Martin	6,500
D. R. McMillan, Jr.	6,000
Hideo Shimizu	6,000
A. T. Vasquez	6,000

In addition, Vasquez, whose present NSF fellowship is only $3/4$ of the regular amount, was voted \$1,250 for the summer months of 1963. [The Director will write.]

12. J. J. Price was voted membership for the academic year 1963-64 with a grant of \$4,000. He has half support from other sources. [The Director will write.]

13. J. J. Andrews and R. H. Rosen were voted membership for the academic year 1963-64 conditional on their receiving NSF fellowships. For Andrews housing will be reserved at this time, for Rosen only when the membership becomes firm. [The Director will write.]

14. It was agreed to decline the applications of A. R. Amir-Moéz and T. Ono. [Professor Selberg will write.]

15. It was agreed to postpone the consideration of the following applicants: Asenjo (Gödel will write for information), Nagata (Weil will obtain further information), Moran and Haken.

Atle Selberg

Secretary

401.

Minutes of a meeting of the Faculty in Mathematics held December 17, 1962.

Present: Professors Beurling, Borel, Gödel, Montgomery, Selberg, Weil and Whitney.

This meeting was called for the purpose of considering candidates for faculty appointment in mathematics.

1. It was unanimously agreed to nominate Professor Lars Hörmander, of Stockholm, Sweden, for a faculty appointment.

2. There was some discussion about the advisability of making a second nomination at this time with the understanding that the first nomination would have priority if the Board of Trustees did not find that two appointments would be in order now.

3. It was voted to nominate Professor Harish-Chandra, of Columbia University, for a faculty appointment with the understanding that the nomination of Hörmander would have priority. The vote was 5 in favor, 2 (Gödel and Whitney) apposed.

4. It was agreed that documents would be prepared about the two nominees. Beurling would prepare the document about Hörmander, and Borel that about Harish-Chandra. In addition, Selberg would prepare a covering statement giving the majority's reasons for proposing two appointments and the reasons why priority should be given to the nomination of Hörmander. Gödel and Whitney would either jointly, or separately, state the reasons for their dissent on the second nomination in a statement, or statements, to be appended to the covering statement. It was intended that these documents should be ready sometime in January.

Atle Selberg

Secretary

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY

SCHOOL OF MATHEMATICS

December 21, 1962

Professor Atle Selberg
Institute for Advanced Study

Dear Professor Selberg:

Since, in accordance with the view of the Director, I do not consider the meeting of December 17, 1962, to have been a formal meeting of the School of Mathematics, I am not in a position to approve the Minutes for inclusion in the file of meetings of the School of Mathematics.

If I did consider the meeting to have been a formal one I would have to request certain changes in the Minutes.

Sincerely yours,

Kurt Gödel

Kurt Gödel

KGdu

CC: Dr. Oppenheimer

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY

SCHOOL OF MATHEMATICS

February 15, 1963

To the Director and Trustees of the Institute for Advanced Study:

I wish to explain the reasons for my manner of voting at the meeting of the Faculty in Mathematics on December 17, 1962, and state my present feelings on the matter.

At the time of that meeting, I had two principal reasons for opposing a recommendation for two appointments to the Faculty in Mathematics, due to the fact that this would clearly preclude the possibility of further appointments for some time to come. First, the situation in regard to Milnor, though seemingly at a complete standstill, was nevertheless of a nature which might be expected to change with the passage of time. To rule out so completely the possibility of further consideration of Milnor at this time seemed to me to imply a lesser regard for him than was in fact the case. Second, there are young men such as S. Smale and M. Atiyah who show great promise, and might within a few years appear to be most desirable Faculty Members; I felt the decision ruling them out also for a long period was too hastily undertaken.

At the present, the Milnor affair is entering a new phase, and I can now discount my opposition based on this. My second objection remains, but with less force. I think there is some reality in the supposition that if we are to ask Harish-Chandra at all, it should be in the near future. With further acquaintance with his work, I agree that it is becoming of broader significance; I have always had a high regard for him, both scientifically and personally, in any case.

To summarize, my present personal preference would still be to wait for a period before making a second nomination (if Hörmander should be asked and should accept). However, a group of Faculty Members cannot be expected to be in full agreement on all points, and since I am sure that both Hörmander and Harish-Chandra would be very sound Faculty Members, I now wish to go on record as approving the nomination of both men.

Hassler Whitney
Hassler Whitney

402.

Minutes of a meeting of the Faculty in Mathematics held January 22, 1963:

Present: Professors Beurling, Borel, Gödel, Montgomery, Selberg and Whitney.

1. It was agreed to decline the application of F. G. Asenjo.
[Professor Gödel will write.]
2. G. F. D. Duff was voted membership for the second term of the academic year 1963-64 with a grant of \$7,000. [The Director will write.]
3. Wolfgang Haken was voted membership for the academic year 1963-64 with a grant of \$10,000. [The Director will write.]
4. Per Holm was voted membership for the academic year 1963-64 conditional on his receiving a grant from the Norwegian Research Council. Housing is to be reserved only when membership becomes definite. [The Director will write.]
5. It was agreed to accept Taqdir Husain as a visitor during August 1963. [The Director will write.]
6. It was agreed to accept R. A. Melter as a visitor during July 1 to August 6, 1963. [The Director will write.]
7. Mikio Ise was voted membership for the academic year 1963-64 with the regular grant of \$6,000. \$500 are to be reserved for travel in case he does not obtain Fulbright aid. [The Director will write.]
8. Jun-iti Nagata was voted membership for the academic year 1963-64 with a grant of \$8,000. \$500 are to be reserved for travel in case he does not obtain Fulbright aid. [The Director will write.]
9. It was agreed to decline the application of U. Shukla. [Professor Selberg will write.]
10. It was voted to invite Jean-Pierre Kahane as a visitor during September 1963 and for such part of the fall term of 1963-64 as he could stay. It was further agreed to offer him \$1,500 per month during his stay. [The Director will write.]
11. Felix Browder was voted membership for the academic year 1963-64 with a grant of \$7,500. [The Director will write.]
12. It was agreed that we would invite D. J. Newman of Yeshiva University and K. Hoffman of Massachusetts Institute of Technology for the academic year 1963-64. Professor Beurling will correspond to get information as to their availability and financial needs.

403.

13. Patrick Ahern was voted membership for the academic year 1963-64. It was agreed to reserve the regular grant of \$7,000 for him in case he does not receive an NSF fellowship. [The Director will write.]

14. Paul Baum was voted membership for the academic year 1963-64, and the regular grant of \$6,500 reserved for him in case he does not receive an NSF fellowship. As he wishes to stay at the Institute only for the second term in case he receives the NSF Fellowship, housing should at this time only be reserved for him for the second term. [The Director will write.]

15. Andrew Browder was voted membership with the regular grant of \$6,800 for the academic year 1963-64. [The Director will write.]

16. It was agreed to decline the application of Donald Greenspan. [Professor Selberg will write.]

17. O. G. Harrold was voted membership for the second term of the academic year 1963-64. He will provide his own financial support. [The Director will write.]

18. John P. Hempel was voted membership for the academic year 1963-64 with the regular grant of \$6,000. [The Director will write.]

19. Melvin Henriksen was voted membership for the academic year 1963-64 with a grant of \$4,000. [The Director will write.]

20. Mark Mahowald was voted membership for the academic year 1963-64. He will provide his own financial support. [The Director will write.]

21. Roger W. Richardson was voted membership for the academic year 1963-64 during his NSF fellowship. [The Director will write.]

22. Elbert A. Walker was voted membership for the academic year 1963-64 during his Senior NSF fellowship. [The Director will write.]

23. Max L. C. Weiss was voted membership for the academic year 1963-64 during his NSF fellowship. [The Director will write.]

24. John R. Isbell was voted membership for the academic year 1963-64 with a grant of \$5,000. It is understood that he will obtain the rest of his financial needs from other sources. [The Director will write.]

25. It was agreed to offer Andrew Wallace membership for the academic year 1964-65 when he applies. [Professor Borel will write.]

404.

26. Various ways of cutting down the delay in the handling of applications were discussed. It was agreed to meet to consider applications every second week during the latter part of the first term and during the second term. The time set for these meetings is Tuesday at 11:15 a.m., the next meeting to be on February 5, 1963. Furthermore it was agreed that some marking would be devised to indicate that applications are complete enough for action, and also to indicate if anyone on the Faculty takes a particular interest in the application.

Atle Selberg

Minutes of a meeting of the Faculty in Mathematics held February 8, 1963.

Present: Professors Beurling, Borel, Gödel, Montgomery, Selberg and Whitney.

1. The application of Donald Greenspan was reconsidered in view of the new information contained in his recent letter. It was agreed to decline his application. [Professor Selberg will write.]

2. Marian B. Pour-El was voted membership with the regular grant of \$6,500 for the academic year 1963-64. [The Director will write.]

3. It was agreed to postpone the consideration of the application of Richard C. Jeffrey.

4. It was agreed to decline the application of Richard E. Johnson. [Professor Selberg will write.]

5. It was agreed to decline the application of Louis Brickman. [Professor Selberg will write.]

6. It was agreed to decline the application of Juliusz Reichbach. [Professor Selberg will write.]

7. It was agreed to decline the application of Joseph A. Zilber. [Professor Selberg will write.]

8. It was agreed to decline the application of Arthur J. Schwartz. [Professor Selberg will write.]

9. Luke H. Hodgkin was voted membership for the academic year 1963-64 with the regular grant of \$7,000. He should be asked to let us know in case he does not obtain funds for travel. [The Director will write.]

10. Antoni Kosinski was voted membership for the first term of the academic year 1963-64 with a grant of \$4,500. [The Director will write.]

11. James M. Kister was voted membership for the academic year 1963-64 with a grant of \$7,500. [The Director will write.]

12. It was agreed to postpone the consideration of Elon L. Lima. Professor Montgomery will get information about the renewal of Lima's Guggenheim Fellowship and his financial needs.

13. It was agreed to decline the application of O. Barndorff-Nielsen. [Professor Selberg will write.]

14. David Shale was voted membership for the academic year 1963-64 with the regular grant of \$6,000. [The Director will write.]

15. It was agreed to accept Jean-Pierre Serre as a visitor during the period November 15 to December 15, 1963, with a grant of \$2,500. [The Director will write.]

406.

16. It was agreed to invite Lars Gårding to give a lecture here in April 1963 when he will be in the vicinity, and to offer him an honorarium of \$150 from the Visitors Fund. [Professor Beurling will write.]

17. Edwin Hewitt was voted membership for the academic year 1963-64 with the understanding that he does not need any funds from us. [The Director will write.]

18. It was agreed to offer Justin J. Price membership for the academic year 1964-65 with the understanding that he would get half-salary from his university and the other half from us. [The Director will write.]

19. The question of housing was discussed. It was felt that in general the time of appointment ought to be the deciding factor for priority on housing, but that there might be special cases where it would seem right to deviate from this rule.

Atle Selberg

Secretary

407.

Minutes of a meeting of the Faculty in Mathematics held February 26, 1963.

Present: Professors Beurling, Borel, Gödel, Montgomery, Selberg and Whitney.

1. The proposal of a long-term membership for John Milnor put forth in the Director's letter to the Faculty of February 14, 1963, was discussed. All were in favor of this arrangement. It was agreed that Professor Selberg would draft a statement expressing the view of those present. This draft will be circulated for comments and suggestions of changes before the statement is transmitted to the Director.

2. The letter from D. Nelson at The George Washington University concerning Kolmogorov was discussed. It was agreed that we would in conjunction with his proposed lecture at The George Washington University invite Kolmogorov for a visit of one month with a grant of \$2,000, or two weeks with a grant of \$1,000, during the Spring of 1964. [Professor Selberg will write to Nelson. The Director will send the official invitation to Kolmogorov only when we know definitely that The George Washington University invites him for the lecture.]

3. Michel Kervaire was voted membership for the first term of the academic year 1963-64. Funds will come from N.Y.U. [The Director will write.]

4. Leonard S. Charlap was voted a supplementary grant of \$1,000 to enable him to stay here during the summer months this year. [The Director will write.]

5. Saul Lubkin was voted membership for the academic year 1963-64 with the regular grant of \$6,000. [The Director will write.]

6. Robert I. Jewett was voted membership for the academic year 1963-64 with the regular grant of \$6,000. [The Director will write.]

7. It was agreed to decline the application of J. Ralph Alexander. [Professor Selberg will write.]

8. It was agreed to decline the application of Julio R. Bastida. [Professor Selberg will write.]

9. It was agreed to decline the application of R. J. Koch. [Professor Selberg will write.]

10. It was agreed to decline the application of Wasfi A. Hijab. [Professor Gödel will write.]

11. It was agreed to postpone consideration of the application of Carol Lee Walker.

Atle Selberg
Secretary

408.

Minutes of a meeting of the Faculty in Mathematics held March 12, 1963.

Present: Professors Beurling, Borel, Gödel, Montgomery, Selberg and Whitney.

1. It was agreed to decline the application of T. Klemola. [Professor Selberg will write.]

2. It was agreed to decline the application of E. Lima. [Professor Selberg will write.]

3. It was agreed to decline the application of S. Moran. [Professor Selberg will write.]

4. T. Kubota was voted membership for the academic year 1963-64 with the regular grant of \$6,500. [The Director will write.]

5. J. Edward Nelson was voted membership for the academic year 1963-64. He has funds and housing. [The Director will write.]

6. R. E. Williamson was voted membership for the academic year 1963-64. He has a National Academy of Sciences postdoctoral fellowship financed by the Air Force Office of Scientific Research. [The Director will write.]

7. John Myhill was voted membership for the academic year 1963-64 with a grant of \$12,000. It is understood that he will not apply through the Institute for a contract with the Air Force Office of Scientific Research. [The Director will write.]

8. H. G. Tucker was voted membership for the academic year 1963-64. He has a sabbatical with 2/3 pay and needs no funds. [The Director will write.]

9. It was agreed to change the status of Michel Kervaire to that of a visitor for the first term of the next academic year, 1963-64, with the proviso that he would retain the full privileges implied by membership. [The Director will write.]

10. It was agreed to postpone the consideration of the applications of F. W. Anderson and Edward Silverman.

11. It was agreed that Borel would write informally to A. H. Wallace with the view of arriving at a suitable figure for Wallace's grant for the academic year 1964-65.

12. There seems to be some disagreement as to whether R. C. Jeffrey's application was formally voted on or not. Rather than argue this, I prefer that we consider the matter without prejudice at our next meeting.

13. It was agreed to pay Laurent Schwartz \$100 from the Visitors Fund as an honorarium for his lecture in the Joint University-Institute Mathematics Club on March 19, 1963.

Atle Selberg

Secretary

Minutes of a meeting of the Faculty in Mathematics held March 29, 1963.

Present: Professors Beurling, Borel, Gödel, Selberg and Whitney.

1. Clifford J. Earle, Jr. was voted membership for the academic year 1963-64 with the regular grant of \$6,500. [The Director will write.]

2. Jack Segal was voted membership for the academic year 1963-64. He has received an NSF postdoctoral fellowship. [The Director will write.]

3. F. W. Anderson was voted membership for the academic year 1963-64. He has a sabbatical with half pay plus support from NSF. [The Director will write.]

4. E. Silverman was voted membership for the academic year 1963-64. He has a sabbatical with half pay plus support from NSF. [The Director will write.]

5. It was agreed to accept Carl C. Faith as a visitor during the period May 20 to August 1, 1963. He does not want housing. [The Director will write.]

6. It was agreed to decline the application of Stanley P. Franklin. [Professor Selberg will write.]

7. It was agreed to decline the application of B. G. Casler. [Professor Selberg will write.]

8. It was agreed to decline the application of M. Ginsburg. [Professor Selberg will write.]

9. It was agreed to decline the application of W. W. Saffern. [Professor Selberg will write.]

10. It was agreed to decline the application of John Selden. [Professor Selberg will write.]

11. It was agreed to decline the application of Carl M. Percy. [Professor Selberg will write.]

12. It was voted to decline the application of R. C. Jeffrey. Professor Selberg suggested that it was unfortunate that applications really belonging in Philosophy of Science be handled as Mathematics, and that some other way of handling them ought to be explored with the Director. No notification will be sent Jeffrey until other possibilities have been explored.

13. It was agreed to postpone the consideration of the applications of Erik Ellentuck and Mrs. Carol Walker.

14. The letter of Gordon Walker about Sobolev was discussed. It was agreed to have Sobolev speak on May 8 on the first of the listed topics. The American Mathematical Society will pay for the visit. [Professor Selberg will communicate with Gordon Walker.]

15. Some questions relating to housing and office space were discussed.

Atle Selberg

410.

Minutes of a meeting of the Faculty in Mathematics held April 16, 1963.

Present: Professors Beurling, Borel, Gödel, Montgomery, Selberg and Whitney.

1. Mrs. Carol Lee Walker was voted membership for the academic year 1963-64. She has been awarded an American Association for University Women Fellowship. [The Director will write.] (It was also agreed that when more is known about the office space situation, Professor Selberg will decide whether the Walkers can be assigned more than one desk.)

2. Erik Ellentuck was voted membership for the academic year 1963-64 with the regular grant of \$6,800. [The Director will write.]

3. In view of the intention of Jean-Pierre Kahane to spend the larger part of the fall term here it was decided to change his status and give him membership for the first term of the academic year 1963-64. [The Director will write.]

4. The letter from W. F. Eberlein, inquiring about membership for the academic year 1963-64, was discussed. It was agreed that Professor Montgomery would write and explain the situation, indicating that the following year might be better, but not ruling out completely the year 1963-64.

5. It was agreed to accept K. Srinivasacharyulu as a visitor either for June-July or July-August 1963. [The Director will write.]

6. It was agreed that we were not interested in a lecture by Stefan Schwarz of Czechoslovakia next fall. [Professor Selberg will write. A. D. Wallace and explain reasons.]

7. It was agreed that Professor Selberg would continue to serve as Secretary for the academic year 1963-64.

Atle Selberg

Secretary

411.

Minutes of a meeting of the Faculty in Mathematics held September 26, 1963:

Present: Professors Beurling, Borel, Gödel, Harish-Chandra, Montgomery, Selberg, Weil and Whitney.

1. It was agreed to accept Dr. John Nash as a member for the academic year 1963-64. It was further agreed that we offer him a grant of \$3,000 for this period, and that this figure might be adjusted upwards somewhat if he should have unusually heavy expenses in connection with his continued treatment.

2. It was agreed that Professor Selberg will, after having consulted with Nash's doctor, talk to Nash about his plans for the next academic year sometime before Christmas.

Atle Selberg

3/12/63

School of Mathematics

1963-1964

Appointments with Institute grants-in-aid:

Remaining from 1962-63 \$181,253.87

Expected appropriation for 1963-64 75,000.00

Total available in grants \$256,253.87

F. J. Almgren, Jr.	\$6,800	
K. Borsuk (visit 1 month Term II)	1,000	
A. Browder	6,800	
F. Browder	7,500	
L. S. Charlap	7,000	
C. R. Curjel (1/2 Cornell)	4,000	
G. F. D. Duff (II)	7,000	
W. B. Giles	6,500	
D. S. Gillman	6,000	
W. Haken	10,000	
J. P. Hempel	6,000	
M. Henriksen	4,000	
L. H. Hodgkin	7,000	
J. R. Isbell	5,000	
M. Ise	6,000	
R. I. Jewett	6,000	
J-P. Kahane (visit Sept.63-(I))	1,500	per month
S. Kantorovitz	6,800	
J. M. Kister	7,500	
M. Kneser (grant or salary)	12,000	
A. Kosinski (I)	4,500	
T. Kubota	6,500	
S. Lubkin	6,000	
J. M. Martin	6,500	
B. Maskit	7,000	
D. R. McMillan	6,000	
J. Myhill	12,000	
J-i. Nagata	8,000	
V. Poenaru (Calendar 1964)	7,000	(\$3,500 per term)
M. Pour-El	6,500	
H. L. Selberg	11,000	
J-P. Serre (visit 11/15-12/15)	2,500	
D. Shale	6,000	
W. Shih	6,800	+ \$500 (travel)
H. Shimizu	6,000	
A. T. Vasquez	<u>6,000</u>	\$233,200

Reservations:

P. Ahern (NSFF or	\$7,000	
P. Baum (NSFF (II) or	6,500	
W. Browder	11,000	
M. Ise	500	
Kolmogorov	2,000	
O. Ladyzenskaja (2 months (I))	6,000	
Lavrientiev (1-week visit)	?	
J-i. Nagata	<u>500</u>	
	<u>33,500</u>	<u>266,700.00</u>
		\$-10,446.13

Assistants:

J. C. Cantwell	(Morse)		\$6,000.00
G. R. Livesay	(Montgomery)	\$6,000 or	6,300.00

With outside funds:

J. J. Andrews, Senior NSF fellowship
E. R. Fadell, outside
E. E. Floyd, outside
O. G. Harrold (II), outside
E. Hewitt, outside
Per Holm, conditional on Norwegian Research Council fellowship
Michel Kervaire, visitor with NYU funds
M. Mahowald, outside
J. E. Nelson, outside
R. Palais, Senior NSF fellowship
R. W. Richardson, NSF fellowship
R. H. Rosen, conditional on NSF fellowship
D. E. Sarason, NSF fellowship
I. J. Schoenberg, outside
H. G. Tucker, sabbatical pay
E. A. Walker, Senior NSF fellowship
M. L. C. Weiss, NSF fellowship
R. E. Williamson, NAS fellowship with AFOSR funds

Government grants:

Air Force Office of Scientific Research	\$45,000
NSF grant for Algebra and Topology (IV)	62,320
NSF grant for Analysis (IV)	77,600
[Application made for \$20,000 to Army Research Office]	

Minutes of a meeting of the Faculty in Mathematics held October 29, 1963:

Present: Professors Baurling, Borel, Gödel, Harish-Chandra, Montgomery, Selberg, Weil and Whitney.

1. It was agreed to change the period of membership for V. Poénaru from the calendar year of 1964 to the academic year 1964-65. [The Director will write.]

2. It was agreed to offer A. H. Wallace a grant of \$15,500 for the academic year 1964-65. [The Director will write.]

3. It was agreed to offer membership for the academic year 1964-65 to F. Gherardelli with the standard grant of \$7,000. He should be advised to seek a Fulbright travel grant and to let us know if he does not receive it. \$500 will be reserved in case he does not receive Fulbright aid. [The Director will write.]

4. It was agreed to offer J. L. Doob membership for the academic year 1964-65 with a grant of \$12,000. [The Director will write.]

5. It was agreed to offer W. Klingenberg membership for the academic year 1964-65 with a grant of \$12,000. [The Director will write.]

6. It was agreed to offer S. S. Chern membership for the first term of the academic year 1964-65 and to let him know that we will supply the part of his half-year salary that he cannot get from the National Science Foundation. A reservation of \$13,000 was made for this purpose. He should be told that housing cannot be guaranteed for the part of January 1965 that he wishes to remain here. [The Director will write.]

7. It was agreed to decline the application from Hel Braun. [Professor Selberg will write.]

8. It was agreed to postpone consideration of the application of H. A. Pogorzelski and, if possible, to take it up at the next meeting.

9. It was agreed to offer H. L. Resnikoff membership for the academic year 1964-65 and to reserve the regular grant for him in case he does not obtain National Science Foundation support. His grant would be \$6,500. He should be asked to let us know about the outcome of his application to the NSF. [The Director will write.]

10. The application of J. Zabara was discussed at some length. No action was taken at this time.

11. It was agreed that we would not encourage those who have inquired about membership for the second term this year, but ask them if they can postpone their intended visits to the academic year 1964-65. [Professor Selberg will write.]

413.

12. It was agreed to raise the grant of E. Ellentuck for this year by \$1,000, making his total grant \$7,800. [The Director will write.]

13. It was agreed that for the purpose of paying the Institute's share of the expenses and honoraria for speakers in the Joint Institute-University Mathematics Club, it would be in order to draw in each case up to \$150 from the Visitors Fund without any special authorization or vote.

14. Professor Selberg spoke about Lavrientiew's coming visit. He also announced a special meeting to be held tentatively at 10:30 a.m. on November 5.

Atle Selberg
Secretary

Minutes of a meeting of the Faculty in Mathematics held November 5, 1963:

Present: Professors Beurling, Borel, Gödel, Harish-Chandra, Montgomery, Oppenheimer, Selberg, Weil and Whitney.

1. The discussion of the first item on the agenda, the use of contract funds for summer salaries for faculty members, was opened by Professor Selberg, who stated that, since this practice was now followed by all or practically all mathematics departments in American universities, a gap had been created between faculty salaries in the Institute and the de facto top salaries in many mathematics departments, a gap which particularly presents a serious obstacle to the recruiting of new faculty members to the Institute. Professor Selberg went on to mention the informal assurances that had been given to Professor Harish-Chandra in the spring of this year, and suggested procedures to be followed in such use of contract funds in the Institute in the future.

The Director reported that he had already called the attention of the Board of Trustees to the existence of this problem, and that he proposed sometime during this academic year to ask the Board to consider the question of an increase in faculty salaries in the Institute, which might eliminate the present need for summer salaries.

After some comments and discussion the following points were agreed upon:

- a. Summer salaries from contract funds will be available to those faculty members in mathematics who wish to receive them. However, a salary increase of \$5,000 would for the time being eliminate the need for such use of contract funds, and if such an increase is granted by the Board of Trustees of the Institute, contract funds would not be used for summer salaries until such time as the need again is present.
- b. The use of contract funds for summer salaries for faculty members would follow the general rules laid down by the National Science Foundation*. However, it was agreed to limit the summer salary to 20 percent of the academic salary rather than the 2/9 which the NSF permits. This summer salary would be received during two or three months of the recipient's choosing during the period of the Institute's summer vacation.

* I wish to draw your attention to the following passage about acknowledgment in the NSF booklet about research grants: "An appropriate acknowledgment of Foundation support should be made in connection with publication of any material based on research aided by the Foundation."

415.

c. Unless it is by that time clear no such use of contract funds will take place that year, the secretary will each year in March send out a note to the faculty members in mathematics asking that they let him know if they wish to receive a summer salary or not, and in the former case that they state during which months of the vacation period they wish to receive it, and that they make a brief statement about the area of their current research as may be needed to decide which of our NSF contracts is the more appropriate source of funds.

2. The question of encouraging somewhat greater summer attendance and activity in the Institute, particularly during the months of June, July and August, was discussed.

It was agreed that we would let our members know that additional grants might be obtained from us by those who want to stay on during all or a substantial part of this period. It was also agreed that we might be somewhat more willing than before to give funds to visitors who want to stay at the Institute during this period.

It was suggested that additional air conditioning units for offices would help to make this program successful.

3. Professor Selberg proposed that Professor Borel together with himself represent the mathematicians on a faculty committee that is being formed to consider new rules and procedures for the handling of faculty appointments. This choice was approved.

Atle Selberg

Secretary

Minutes of a meeting of the Faculty in Mathematics held November 19, 1963:

Present: Professors Beurling, Borel, Harish-Chandra, Montgomery, Selberg, Weil and Whitney.

1. It was agreed to decline the application of Jacob Zabara. Professor Selberg will not send a letter of declination until it is certain that the Faculty in Physics does not wish to consider this application.

2. It was agreed to postpone consideration of the application of H. A. Pogorzelski.

3. It was agreed to postpone the consideration of James Eells, and to take the matter up in the spring if he has not by then accepted a position at some university. [Professor Whitney will write Eells and recommend that he keep looking for other possibilities.]

4. It was agreed to decline the application of Marek Burnat. [Professor Selberg will write.]

5. K. W. Kwun was voted membership for the academic year 1964-65 with a grant of \$7,500. [The Director will write.]

6. R. H. Szczarba was voted membership for the academic year 1964-65 and a grant of \$7,500. [Professor Selberg will write first informally to find out if the grant needs to be adjusted upwards; the Director will then write formally.]

7. R. J. Blattner was voted membership for the academic year 1964-65. He has 2/3 sabbatical pay; it was agreed to give a grant of \$3,300 equal to the remaining 1/3 pay. [The Director will write.]

8. It was agreed to postpone the consideration of J. D. Stasheff. Professor Borel will ask John Milnor and William Browder for their opinions of him.

9. David W. Weaver was voted membership for the academic year 1964-65. It was agreed to reserve the standard grant of \$6,000 for him, and to ask him to let us know if his application for an NSF postdoctoral fellowship is not granted. [The Director will write.]

10. Ronald Getoor was voted membership for the academic year 1964-65 conditional on his obtaining funds elsewhere. He should be asked to let us know if his applications to the NSF or the Guggenheim Foundation are not both granted. Housing should be reserved now. [The Director will write.]

11. It was agreed to postpone the consideration of the applications of S. Armentrout and W. E. Comfort.

12. It was agreed to give J-P. Kahane \$500 for travel for his current visit. [The Director will write.]

Atle Selberg
Secretary

Minutes of a meeting of the Faculty in Mathematics held December 10, 1963.

Present: Professors Beurling, Borel, Harish-Chandra, Montgomery, Selberg, Weil and Whitney.

1. It was agreed to offer William Boone membership for the academic year 1964-65. It is understood that his salary will be paid by the University of Illinois and the National Science Foundation. [The Director will write.]

2. It was agreed to offer Sigurdur Helgason membership for the academic year 1964-65, and to reserve \$6,250 (half his academic salary; he gets the other half from M.I.T.) for him. He should be asked to notify us about the outcome of his application for a Guggenheim Fellowship, in particular of the amount of his fellowship if he gets it. [The Director will write.]

3. It was agreed to offer Brian J. Sanderson membership for the academic year 1964-65 with the regular grant of \$6,500. [The Director will write.]

4. It was agreed to welcome Alex Heller as a visitor during the months of June, July and August 1964. [The Director will write.]

5. It was agreed to offer Hans E. Wallin membership for the academic year 1964-65 and a grant of \$6,000. (This is lower than the regular grant because he will keep a certain part of his salary from Sweden.) [The Director will write.]

6. It was agreed to offer Paul Baum membership for the academic year 1964-65 with the regular grant of \$6,800. [The Director will write.]

7. It was agreed to postpone consideration of the applications of J. D. Stasheff and Dock Sang Rim.

8. It was agreed to offer Calvin C. Moore membership for the academic year 1964-65 and a grant of \$7,000. (In addition to the material in the files, Professor Borel reported that S. Chern and W. Mackey had expressed very high opinions about Moore, and that a paper by Moore had recently been accepted by the ANNALS.) [The Director will write.]

9. It was agreed to postpone the consideration of the application of T. S. Bhanu Murthy until January 1964 in order to wait for a letter from I. Gelfand.

10. It was agreed to offer Frank W. Warner membership for the academic year 1964-65 with the regular grant of \$6,500. [The Director will write.]

11. It was agreed to offer Jin-Chen Su membership for the academic year 1964-65 with the regular grant of \$6,800. [The Director will write.]

418.

12. It was agreed to postpone the consideration of H. A. Pogorzelski as Professor Weil is considering whether to offer him his assistantship or not.

13. It was agreed to postpone the consideration of the application of E. Michael.

14. It was agreed to offer Dale E. Varberg membership for the academic year 1964-65. He has an NSF fellowship. [The Director will write.]

15. Professor Selberg mentioned that M. A. Lavrent'ev would, according to the latest information, be in Princeton on January 7, 8 and 9. He will be accompanied by his wife. There was some discussion of whether he should be invited to give a lecture or not. Professor Selberg will inquire from Lipman Bers whether he thinks Lavrent'ev would appreciate such an invitation or not.

16. It was agreed to offer Y. Katznelson of Yale University \$100 as honorarium and travel expenses for a lecture to be given in Professor Beurling's seminar. It was further agreed to raise the limit that each professor could offer as speaker-honorarium, without a vote or consulting with the others, from \$50 to \$100.

17. The date of the next meeting was tentatively set as January 21, 1964.

Atle Selberg

Secretary

413.

12. It was agreed to postpone the consideration of H. A. Pogorzelski as Professor Weil is considering whether to offer him his assistantship or not.

13. It was agreed to postpone the consideration of the application of E. Michael.

14. It was agreed to offer Dale E. Varberg membership for the academic year 1964-65. He has an NSF fellowship. [The Director will write.]

15. Professor Selberg mentioned that M. A. Lavrent'ev would, according to the latest information, be in Princeton on January 7, 8 and 9. He will be accompanied by his wife. There was some discussion of whether he should be invited to give a lecture or not. Professor Selberg will inquire from Lipman Bers whether he thinks Lavrent'ev would appreciate such an invitation or not.

16. It was agreed to offer Y. Katznelson of Yale University \$100 as honorarium and travel expenses for a lecture to be given in Professor Beurling's seminar. It was further agreed to raise the limit that each professor could offer as speaker-honorarium, without a vote or consulting with the others, from \$50 to \$100.

17. The date of the next meeting was tentatively set as January 21, 1964.

Atle Selberg

Secretary