

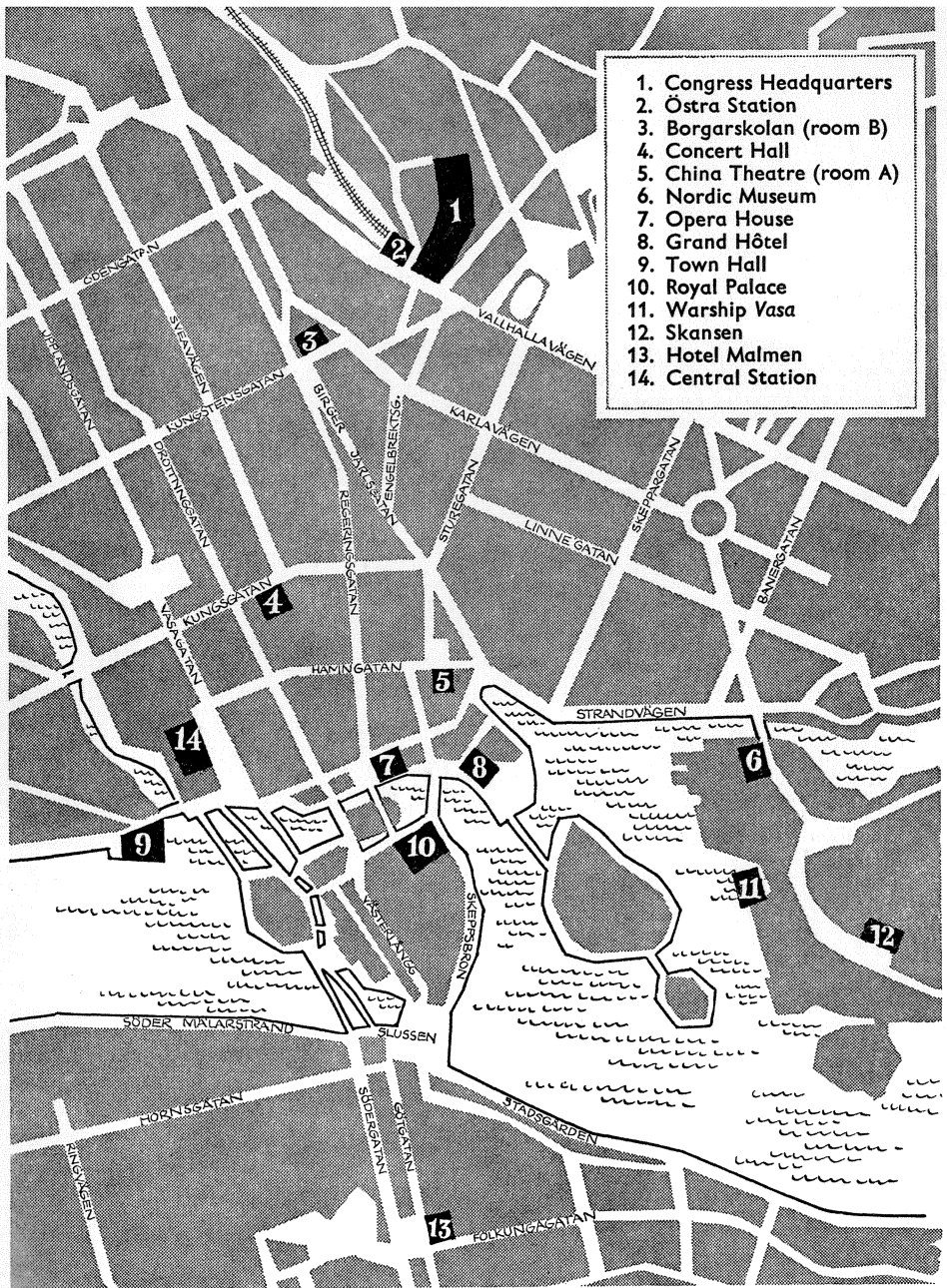
INTERNATIONAL CONGRESS
OF MATHEMATICIANS

Programme

| I | C | M |

STOCKHOLM 1962

1. Congress Headquarters
2. Östra Station
3. Borgarskolan (room B)
4. Concert Hall
5. China Theatre (room A)
6. Nordic Museum
7. Opera House
8. Grand Hôtel
9. Town Hall
10. Royal Palace
11. Warship Vasa
12. Skansen
13. Hotel Malmen
14. Central Station



INTERNATIONAL CONGRESS
OF MATHEMATICIANS
STOCKHOLM 1962

Patron

HIS MAJESTY THE KING OF SWEDEN

MEETING IN STOCKHOLM

at the Invitation of

The Swedish National Committee for Mathematics

and the Swedish Mathematical Society

AUGUST 15th-22nd 1962

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Tickets and invitation cards will be used for admission to excursions and entertainments. It is therefore essential that members have them to hand.

Members who find that they cannot make use of tickets and invitation cards allotted to them are asked to hand these in to the Congress Bureau at the earliest opportunity.

OUTLINE PROGRAMME

TUESDAY, 14TH AUGUST

10.00–20.00 Registration.

WEDNESDAY, 15TH AUGUST

8.30 Registration continues.

10.00 Opening ceremony in the Concert Hall (Konserthuset, see map inside front cover) and presentation of Fields Medals by His Majesty the King of Sweden.

11.30–12.30 Short lectures in the Concert Hall on the work for which the Fields Medals have been awarded.

15.30–18.00 Invited addresses and I.C.M.I. session (see Scientific Programme).

THURSDAY, 16TH AUGUST

9.15–11.30 } Invited addresses and sectional meetings (see Scientific
14.00–18.00 } Programme).

Morning excursions (excluding B 14, B 15 and B 17) for associate members with WHITE tickets. Times and places of assembly are printed on the tickets.

20.00 Social evening in the City Hall (Stadshuset, see map inside front cover) with buffet and dancing.

FRIDAY, 17TH AUGUST

9.00–12.00 } Invited addresses and sectional meetings (see Scientific
14.00–16.30 } Programme).

Outline Programme

Morning excursions (excluding B 14, B 16 and B 17) for associate members with BLUE tickets. Times and places of assembly are printed on the tickets.

20.00 Entertainment at Skansen (see map inside front cover).

SATURDAY, 18TH AUGUST

9.00–11.30 Invited addresses and sectional meetings (see Scientific Programme).

SUNDAY, 19TH AUGUST

A 1 Excursion to the outer archipelago. Departure at 9.00 from the place indicated on the ticket (Grand Hôtel or Skeppsbron). Return to Stockholm by about 19.00. Lunch will be served at the destination and soft drinks on the steamer. Holders of BROWN tickets must travel by the *Ragne/Sunnan*. Holders of GREY tickets must travel by the *Saltsjön*. Brown tickets are not valid on the *Saltsjön*, grey tickets are not valid on the *Ragne/Sunnan*.

A 2 Excursion to the inner archipelago. Departure from the quay in front of the Grand Hôtel (see map inside front cover) at 10.00. Return to Stockholm by about 16.00. Lunch will be served at the destination and soft drinks on the steamer. Holders of BLUE tickets must travel by the *Saxaren*. Holders of YELLOW tickets must travel by the *Vitsgarn*. Blue tickets are not valid on the *Vitsgarn* and yellow tickets are not valid on the *Saxaren*.

A 3 Excursion to Gripsholm, Uppsala and Sigtuna (GREEN tickets). Buses leave from in front of the Opera House (see map inside front cover) at 9.00. Lunch and afternoon tea will be served en route. Return to Stockholm by about 19.00.

MONDAY, 20TH AUGUST

9.00–12.00 } Invited addresses and sectional meetings (see Scientific
14.00–17.30 } Programme).

Morning excursions (excluding B 15, B 16 and B 17) for associate members with PINK tickets. Times and places of assembly are printed on the tickets.

Evening entertainment for members holding GREEN tickets.

C 2 Opera performance at the Court Theatre of Drottningholm.
Time and place of assembly are printed on the tickets.

TUESDAY, 21ST AUGUST

9.00–12.00 } Invited addresses and sectional meetings (see Scientific
14.00–17.30 } Programme).

Morning excursions (excluding B 14, B 15 and B 16) for associate members with GREY tickets. Times and places of assembly are printed on the tickets.

Evening entertainment.

C 1 Ballet performance at the Royal Opera (see map inside front cover) at 20.00. Members are warned that once the performance has started the doors will be closed until the first interval.

C 2 Opera performances at the Court Theatre of Drottningholm. ORANGE tickets: first performance. LILAC tickets: second performance. Times and places of assembly are printed on the tickets.

C 4 Chamber music in the Concert Hall, small auditorium, at 20.00.

WEDNESDAY, 22ND AUGUST

9.00–11.30 Invited addresses and sectional meetings (see Scientific Programme).

14.00 Closing Ceremony in the Concert Hall.

Les billets et les cartes d'invitation devant être utilisés pour l'admission aux excursions et divertissements, il est indispensable que les membres les aient toujours à leur disposition.

Ceux des membres qui ne peuvent pas faire usage de certains billets et cartes d'invitation qui leur ont été alloués sont priés de les remettre au Bureau de Congrès dès que possible.

APERÇU DU PROGRAMME

MARDI, 14 AOÛT

10 h–20 h Inscription des membres.

MERCREDI, 15 AOÛT

8 h 30 Suite des inscriptions.

10 h Cérémonie d'ouverture dans la Salle des Concerts (Konserthuset, voir le plan à l'intérieur de la couverture) et distribution des médailles Fields par Sa Majesté le Roi de Suède.

11 h 30–12 h 30 Rapports dans la Salle des Concerts sur le travail pour lequel les médailles Fields ont été conférées.

15 h 30–18 h Conférences et Session de la C.I.E.M. (voir le Programme Scientifique).

JEUDI, 16 AOÛT

9 h 15–11 h 30 } Conférences et réunions par sections (voir le Programme
14 h–18 h } Scientifique).

Excursions dans la matinée (à l'exception de B 14, B 15 et B 17) pour les membres associés ayant des billets BLANCS. Les heures et lieux de réunion sont imprimés sur les billets.

20 h Soirée dans la Salle de l'Hôtel de Ville (Stadshuset, voir le plan à l'intérieur de la couverture) avec buffet froid et danse.

VENDREDI, 17 AOÛT

9 h–12 h } Conférences et réunions par sections (voir le Programme
14 h–16 h 30 } Scientifique).

Excursions dans la matinée (à l'exception de B 14, B 16 et B 17) pour membres associés ayant des billets BLEUS. Les heures et lieux de réunion sont imprimés sur les billets.

20 h Divertissement à Skansen (voir le plan à l'intérieur de la couverture).

SAMEDI, 18 AOÛT

9 h–11 h 30 Conférences et réunions par sections (voir le Programme Scientifique).

DIMANCHE, 19 AOÛT

A 1 Excursion dans l'Archipel extérieur. Départ à 9 h du lieu indiqué sur le billet (Grand Hôtel ou Skeppsbron). Retour à Stockholm vers 19 h. Le déjeuner sera servi au lieu de destination et des rafraîchissements seront servis à bord du bateau. Les détenteurs de billets BRUNS devront prendre le *Ragne/Sunnan* et ceux qui possèdent des billets GRIS le *Saltsjön*.

Les billets bruns ne donnent pas droit au voyage sur le *Saltsjön* ni les billets gris au voyage sur le *Ragne/Sunnan*.

A 2 Excursion dans l'Archipel intérieur. Départ du quai devant le Grand Hôtel (voir le plan à l'intérieur de la couverture) à 10 h. Retour à Stockholm vers 16 h. Le déjeuner sera servi au lieu de destination et des rafraîchissements seront servis à bord du bateau. Les détenteurs de billets BLEUS devront prendre le *Saxaren* et ceux qui possèdent des billets JAUNES le *Vitsgarn*.

Les billets bleus ne donnent pas droit au voyage sur le *Vitsgarn* ni les billets jaunes au voyage sur le *Saxaren*.

A 3 Excursion à Gripsholm, Uppsala et Sigtuna (billets VERTS). Les autocars partent de la place devant l'Opéra (voir le plan à l'intérieur de la couverture) à 9 h. Déjeuner et thé seront servis en route. Retour à Stockholm vers 19 h.

LUNDI, 20 AOÛT

9 h–12 h } Conférences et réunions par sections (voir le Programme
14 h–17 h 30 } Scientifique).

Excursions dans la matinée (à l'exception de B 15, B 16 et B 17) pour membres associés ayant des billets ROSES. Les heures et lieux de réunion sont imprimés sur les billets.

Divertissement dans la soirée pour les membres détenteurs de billets VERTS.

C 2 Représentation d'opéra dans le Théâtre de la Cour à Drottningholm. L'heure et le lieu de réunion sont imprimés sur les billets.

MARDI, 21 AOÛT

9 h–12 h } Conférences et réunions par sections (voir le Programme
14 h–17 h 30 } Scientifique).

Excursions dans la matinée (à l'exception de B 14, B 15 et B 16) pour membres associés ayant des billets GRIS. Les heures et lieux de réunion sont imprimés sur les billets.

Divertissements dans la soirée.

C 1 Représentation de ballet à l'Opéra Royal (voir le plan à l'intérieur de la couverture) à 20 h. Les membres sont avertis qu'une fois la représentation commencée, les portes sont fermées jusqu'au prochain entr'acte.

C 2 Représentation d'opéra au Théâtre de la Cour à Drottningholm. Billets ORANGE : première représentation. Billets LILAS : deuxième représentation. Les heures et lieux de réunion sont imprimés sur les billets.

C 4 Musique de chambre dans la Salle des Concerts (petite salle) à 20 h.

MERCREDI, 22 AOÛT

9 h–11 h 30 Conférences et réunions par sections (voir Programme Scientifique).

14 h Séance de clôture dans la Salle des Concerts.

Die Eintritts- und Einladungskarten sind für die Beteiligung an Ausflügen und Unterhaltungen erforderlich. Es ist daher unerlässlich, dass die Mitglieder ihre Karten jeweils bei der Hand haben.

Mitglieder, die gewisse Eintritts- oder Einladungskarten nicht anwenden können, werden gebeten, dieselben baldmöglichst beim Kongressbüro abzugeben.

PROGRAMMÜBERSICHT

DIENSTAG, 14. AUGUST

10.00–20.00 Uhr Einschreibung der Teilnehmer.

MITTWOCH, 15. AUGUST

8.30 Uhr Fortsetzung der Einschreibung.

10.00 Uhr Eröffnungsfeier in der Konzerthalle (Konserthuset, s. Stadtplan auf der vorderen Innenseite des Umschlages) und Verleihung der Fieldsmedaillen durch Seine Majestät, den König von Schweden.

11.30–12.30 Uhr Kurze Vorträge in der Konzerthalle über die Arbeiten für welche die Fieldsmedaillen verliehen worden sind.

15.30–18.00 Uhr Vorträge von eingeladenen Rednern und Tagung der I.C.M.I. (s. wissenschaftliches Programm).

DONNERSTAG, 16. AUGUST

9.15–11.30 Uhr } Vorträge eingeladener Redner und Tagungen der
14.00–18.00 Uhr } Forschungsgruppen (s. wissenschaftliches Programm).

Vormittagsausflüge (ausschliesslich B 14, B 15 und B 17) für assoziierte Mitglieder mit WEISSEN Karten. Zeiten und Treffpunkte sind auf den Karten angegeben.

20.00 Uhr Geselliger Abend im Stadthausaal (Stadshuset, s. Plan auf der vorderen Innenseite des Umschlages) mit Imbiss und Tanz.

FREITAG, 17. AUGUST

9.00–12.00 Uhr } Vorträge eingeladener Redner und Tagungen der For-
 14.00–16.30 Uhr } schungsgruppen (s. wissenschaftliches Programm).

Vormittagsausflüge (ausschliesslich B 14, B 16 und B 17) für assoziierte Mitglieder mit **BLAUEN** Karten. Zeiten und Treffpunkte sind auf den Karten angegeben.

20.00 Uhr Abendunterhaltung auf Skansen (s. Plan auf der vor-
 deren Innenseite des Umschlages).

SONNABEND, 18. AUGUST

9.00–11.30 Uhr Vorträge eingeladener Redner und Tagungen der For-
 schungsgruppen (s. wissenschaftliches Programm).

SONNTAG, 19. AUGUST

A 1 Ausflug in die äusseren Schären. Abfahrt um 9.00 Uhr von dem auf der Karte angegebenen Platz (Grand Hôtel oder Skeppsbron). Rückkehr nach Stockholm um etwa 19.00 Uhr. Mittagessen am Bestimmungsort und Erfrischungen auf dem Dampfer. Die Inhaber **BRAUNER** Karten müssen mit der *Ragne/Sunnan* fahren und die Inhaber **GRAUER** Karten mit der *Saltsjön*.

Braune Karten gelten nicht für die *Saltsjön* und graue Karten nicht für die *Ragne/Sunnan*.

A 2 Ausflug in die inneren Schären. Abfahrt vom Kai vor dem Grand Hôtel (s. Plan auf der vorderen Innenseite des Umschlages), um 10.00 Uhr. Rückkehr nach Stockholm um etwa 16.00 Uhr. Mittagessen am Bestimmungsort und Erfrischungen auf dem Dampfer. Die Inhaber **BLAUER** Karten müssen mit der *Saxaren* fahren und die Inhaber **GELBER** Karten mit der *Vitsgarn*.

Blaue Karten gelten nicht für die *Vitsgarn*, gelbe Karten nicht für die *Saxaren*.

A 3 Ausflug nach Gripsholm, Uppsala und Sigtuna (**GRÜNE** Karten). Die Autobusse fahren vom Platz vor dem Opernhaus (s. Plan auf der vorderen Innenseite des Umschlages) um 9.00 Uhr ab. Mittagessen und

Nachmittagstee werden unterwegs eingenommen. Rückkehr nach Stockholm um etwa 19.00 Uhr.

MONTAG, 20. AUGUST

9.00–12.00 Uhr } Vorträge eingeladener Redner und Tagungen der For-
14.00–17.30 Uhr } schungsgruppen (s. wissenschaftliches Programm).

Vormittagsausflüge (ausschliesslich B 15, B 16 und B 17) für assoziierte Mitglieder mit ROSA Karten. Zeiten und Treffpunkte sind auf den Karten angegeben.

Abendunterhaltung für Mitglieder mit GRÜNEN Karten.

C 2 Opernvorstellung im Hoftheater von Drottningholm. Zeit und Treffpunkt sind auf den Karten angegeben.

DIENSTAG, 21. AUGUST

9.00–12.00 Uhr } Vorträge eingeladener Redner und Tagungen der For-
14.00–17.30 Uhr } schungsgruppen (s. wissenschaftliches Programm).

Vormittagsausflüge (ausschliesslich B 14, B 15 und B 16 für assoziierte Mitglieder mit GRAUEN Karten. Zeiten und Treffpunkte sind auf den Karten angegeben.

Abendunterhaltung.

C 1 Ballettvorstellung in der Kgl. Oper (s. Plan auf der vorderen Innenseite des Umschlages) um 20.00 Uhr. Die Mitglieder werden darauf aufmerksam gemacht, dass nach Beginn der Vorstellung die Türen bis zur nächsten Pause geschlossen bleiben.

C 2 Opernvorstellung im Hoftheater von Drottningholm. ORANGE Karten: erste Vorstellung. LILA Karten: zweite Vorstellung. Zeiten und Treffpunkte sind auf den Karten angegeben.

C 4 Kammermusik in der Konzerthalle (kleiner Saal) um 20.00 Uhr.

MITTWOCH, 22. AUGUST

9.00–11.30 Uhr Vorträge eingeladener Redner und Tagungen der Forschungsgruppen (s. wissenschaftliches Programm).

14.00 Uhr Schlusstagung in der Konzerthalle.

Участники конгресса будут допускаться к участию в экскурсиях и развлечениях по билетам и пригласительным карточкам. Поэтому важно, чтобы все участники имели эти билеты и карточки при себе.

Просим тех участников, которые почему-либо не найдут возможным использовать тот или иной выданный им билет или карточку, при первой же возможности сдать эти билеты в Бюро Конгресса.

ОСНОВНОЕ О ПРОГРАММЕ

Вторник, 14-го августа

10.00–20.00 Регистрация.

Среда, 15-го августа

8.30 Продолжение регистрации.

10.00 Торжественное открытие конгресса в Концертном доме (Konserthuset, см. план на внутренней стороне передней обложки) и награждение медалями Фильдса Его Величеством, Королем Швеции.

11.30–12.30 Краткие лекции в Концертном доме о работах, за которые присуждены премии Фильдса.

15.30–18.00 Доклады по приглашению и сессия I.C.M.I (см. научную программу).

Четверг, 16-го августа

9.15–11.30 } Доклады по приглашению и заседания секций (см.
14.00–18.00 } научную программу).

Утренние экскурсии (исключая В 14, В 15 и В 17) для неполноправных членов, имеющих белые билеты. Время и места сбора указаны на билетах.

20.00 Вечер для участников конгресса в Ратуше (Stads-
huset, см. план на внутренней стороне передней об-
ложки). Буфет и танцы.

Пятница, 17-го августа

9.00–12.00 } Доклады по приглашению и заседания секций (см.
14.00–16.30 } научную программу).

Утренние экскурсии (исключая В 14, В 16 и В 17) для неполно-
правных членов, имеющих синие билеты. Время и места сбора ука-
заны на билетах.

20.00 Посещение Скансена (см. план на внутренней стороне
передней обложки).

Суббота, 18-го августа

9.00–11.30 Доклады по приглашению и заседания секций (см.
научную программу).

Воскресенье, 19-го августа

А 1 Поездка в шхеры (на внешние острова стокгольмского архи-
пелага). Отправление в 9.00 с того места, указанного на билете
(Grand Hôtel или Skeppsbron). Возвращение в Стокгольм приблизи-
тельно в 19.00. Участники поездки получают второй завтрак по приезде
на место назначения, а на пароходе — прохладительные напитки.
Обладатели коричневых билетов должны ехать на пароходе *Ragne/
Sunnan*, обладатели серых билетов — на *Saltsjön*.

Коричневые билеты недействительны на пароход *Saltsjön*, а серые
недействительны на *Ragne/Sunnan*.

А 2 Поездка в шхеры (на внутренние острова стокгольмского
архипелага). Отправление с набережной против гостиницы Гранд
Отель (см. план на внутренней стороне передней обложки) в 10.00.
Возвращение в Стокгольм приблизительно в 16.00. Участники
поездки получают второй завтрак на месте назначения и прохлади-
тельные напитки на пароходе. Обладатели синих билетов должны

ехать на пароходе *Saxaren*, обладатели желтых билетов — на *Vitsgarn*.

Синие билеты недействительны на *Vitsgarn*, а желтые недействительны на *Saxaren*.

А 3 Экскурсии в Грипсгольм, Упсалу и Сигтуну (зеленые билеты). Автобусы отправляются со стоянки перед Оперой (см. план на внутренней стороне передней обложки) в 9.00. Второй завтрак и чай в поездке. Возвращение в Стокгольм приблизительно в 19.00.

Понедельник, 20-го августа

9.00–12.00 } Доклады по приглашению и заседания секций (см.
14.00–17.30 } научную программу).

Утренние экскурсии (исключая В 15, В 16 и В 17) для несовершеннолетних членов, имеющих розовые билеты. Время и места сбора указаны на билетах.

Вечернее развлечение для членов, имеющих зеленые билеты.

С 2 Оперный спектакль в Дворцовом театре в Дроттнинггольме. Время и место сбора указаны на билетах.

Вторник, 21-го августа

9.00–12.00 Доклады по приглашению и заседания секций (см.
14.00–17.30 научную программу).

Утренние экскурсии (исключая В 14, В 15 и В 16) для несовершеннолетних членов, получивших серые билеты. Время и места сбора указаны на билетах.

Вечерние развлечения.

С 1 Балетное представление в Королевской Опере (см. план на внутренней стороне передней обложки) в 20.00. Предупреждаем, что после начала представления вход в зрительный зал воспрещен.

С 2 Оперный спектакль в Дворцовом театре в Дроттнинггольме. Оранжевые билеты — первое представление, сиреневые билеты — второе представление. Время и места сбора указаны на билетах.

С 4 Камерная музыка в Концертном Доме (малая аудитория)
в 20.00.

СРЕДА, 22-го августа

9.00–11.30 Доклады по приглашению и заседания секций (см.
научную программу).

14.00 Заключительное заседание в Концертном доме.

GENERAL INFORMATION

ORGANIZING COMMITTEE

Otto Frostman, *Chairman*

Harald Cramér

Lars Gårding

Åke Pleijel

SECRETARY GENERAL

Ragnar Thörn

HEAD OF THE CONGRESS BUREAU

Mrs. Lilian Ribbing

HEAD OF THE ACCOMMODATION BUREAU AND TRAVEL BUREAU

Kurt Lilja

CONGRESS HEADQUARTERS

The Headquarters of the Congress are located in the Royal Institute of Technology (Kungl. Tekniska Högskolan, see map inside back cover). The Congress telephone number is STOCKHOLM 21 65 01 (accommodation 10 88 12). Within the Headquarters building will be found the following:

Congress Bureau. The Congress Bureau will be open for registration and information from 10.00 to 20.00 on Tuesday, 14th August and thereafter from 08.30 to 18.00 daily.

Accommodation Bureau. Enquiries concerning accommodation in hotels, pensions or in private households should be made here.

Travel Bureau. The Congress travel agents (Thos. Cook & Son AB) have a desk at which travel reservations may be made and information concerning Post Congress Tours etc. may be obtained.

Mail. Members should collect their mail each day at the Congress Bureau.

Congress News. A Congress Bulletin will be issued from time to time giving news items of interest and importance for members. This bulletin will be available at the Congress Bureau and at the entrances to room A and room B.

Post Office. A temporary Post Office provides the customary post office facilities.

Telegraph Office. A temporary Telegraph Office provides the customary facilities.

Bank. A branch of the Svenska Handelsbanken provides banking facilities for members. Travellers' cheques and foreign currency may be exchanged here.

Newspapers are available at the book exhibition of Almqvist & Wiksell.

Book Exhibitions. Two exhibitions of books have been arranged in connection with the Congress. A comprehensive one of mathematical books has been arranged by Almqvist & Wiksell Bokhandel AB in collaboration with publishers from many countries.

The other exhibition is devoted to school textbooks and has been arranged by the International Commission on Mathematical Instruction.

Congress Photographer. Photographs taken are obtainable here or through Ge-Be foto, Sparbanksvägen 10, Hägersten, tel. 45 65 65.

LECTURE ROOMS

The one-hour addresses and some of the half-hour addresses will be held in the China Theatre (room A) and in Borgarskolan (room B, see map inside front cover).

The short communications and most of the half-hour addresses will be held within the area shown on the map inside the back cover (rooms C-R).

LOUNGES AND RESTAURANTS

Sitting rooms and reading rooms are situated in the Student Center (see map inside back cover), where lunches and light refreshments are also available at moderate prices (see enclosed menu).

A list of restaurants is included in each of the Stockholm guides issued to members.

THE MITTAG-LEFFLER INSTITUTE

The Institute with its mathematical library is situated in Djursholm, a suburb north of Stockholm. It can be visited on August 16th, 17th, 18th

and 21st from 12.00 to 16.00 and on August 20th from 10.00 to 14.00. Trains leave from Östra Station, lower platform (see maps inside front and back covers) every half hour, e.g. 11.58, 12.28, 12.58. Take the carriage marked "Eddavägen" to Sveavägen station.

CONGRESS BADGES

Members are requested to wear their name badge at all times. Officers of the Congress have blue-and-yellow bows. Other staff have blue-and-yellow rosettes.

BUS AND TRAM SERVICES

Members are provided with a ticket entitling them to free travel on all local trams, buses and underground trains within Stockholm for the duration of the Congress. This ticket is a light green and white card marked KONGRESSKORT.

Please note, that this ticket is not valid for special excursions by tram or bus. Also note that one child under 7 years of age may accompany the holder of the ticket. Finally, the ticket must be signed in ink by the holder and is not transferable.

Konserthuset (the Concert Hall)

Underground station: Hötorget, exit Kungsgatan

Buses: 30, 32, 33, 41, 42, 52

Kungl. Tekniska Högskolan (Royal Institute of Technology)

Underground station: Odenplan and change to tram 4

Trams: 4 and 5

Buses: 52 (57)

China Theatre (room A)

Underground station: T-Centralen, exit Vasagatan, and change to tram 5 or bus 56

Trams: 1, 2, 5, 6, 8 and 10 (7)

Buses: 56, 73 and 69

Borgarskolan (room B)

Underground station: Rådmanngatan (4 blocks away)

Trams: 1, 6, 7 (4 and 5)

Buses: 52

Stadshuset (Town Hall)

Underground station: T-Centralen, exit Vasagatan (5 minutes' walk)

Trams: 1 and 2 (5)

Buses: 57

Grand Hôtel and Kungl. Teatern (Royal Opera)

Underground station: T-Centralen, exit Vasagatan and change to tram 5

Trams: 1, 2, 5, 6, 8 and 10

Buses: 33, 59, 65, 66 and 73

The services in brackets are not direct, but lead to points within easy walking distance.

For routes, see Tourist Map.

GRATUITIES

Hotels and Restaurants. Most hotels and restaurants include the service charge on the bill. At hotels the service charge is usually 15 %, at restaurants 12.5 %.

Taxis. 10 % should be added to the fare.

PARKING OF CARS

A certain amount of free parking space is available in the vicinity of Congress Headquarters. On the other hand, members are advised not to try to park near the Concert Hall or the China Theatre.

Members with cars should make themselves acquainted with the parking regulations in Stockholm (e.g. night parking is prohibited on certain nights in certain streets).

EMERGENCIES AND MEDICAL SERVICE

To contact the Police, Fire Station or Ambulance headquarters in an emergency, dial 90 000 on the nearest telephone.

Arrangements have been made for emergency medical and dental treatment. Information may be obtained from the Congress Bureau.

LOST PROPERTY

Information may be obtained from the Congress Bureau.

LIABILITY

The organizers of the Congress cannot accept responsibility for any accidents, damage or loss of personal belongings due to negligence or theft, which may occur during the Congress.

CHILD-CARE

Baby-sitters can usually be obtained through the hotels. In case of difficulty the Congress Bureau should be consulted.

EXCURSIONS

'A' EXCURSIONS

These take place on Sunday, 19th August. Details of the arrangements are to be found in the Outline Programme.

A 1. *Excursion to the outer Archipelago*

The steamers RAGNE and SUNNAN will take members to Sandhamn. This is on an island to the east of Stockholm on the edge of the Baltic. The Stockholm Pilot Station is situated in Sandhamn, which is a popular centre for sailing and has pleasant, sandy beaches. Lunch will be served at the Swedish Royal Yacht Club.

The steamer SALTJÖN will take members to the island of Utö. Utö is one of the thousands of islands in the Stockholm Archipelago and is a popular bathing and sailing resort. Lunch will be served at the Utö Hotel.

A 2. *Excursion to the inner Archipelago*

The steamers SAXAREN and VITSGARN will sail through the inner archipelago to Vaxholm which is delightfully situated on a narrow channel on the route to Finland. The fortress on the island opposite was at one time the main sea defence of Stockholm. Lunch will be served at the Vaxholm Hotel.

A 3. *Excursion to Sigtuna, Uppsala and Gripsholm*

This excursion by motor coach will travel in two parties. One party will travel south to Gripsholm and then via Uppsala and Sigtuna back to Stockholm. The other party will visit the same places in the reverse order. Lunch and afternoon tea will be served at Gripsholm and Uppsala.

A 4.

This excursion has been cancelled.

'B' EXCURSIONS (For Associate Members only).

These take place on Thursday 16th, Friday 17th, Monday 20th and Tuesday 21st August. Details of departure and times of assembly are printed on the individual tickets. It is essential that Associate Members join these excursions on the mornings which have been allocated to them.

WHITE Tickets — Thursday, 16th August
 BLUE Tickets — Friday, 17th August
 PINK Tickets — Monday, 20th August
 GREY Tickets — Tuesday, 21st August

B 1. *Under the bridges of Stockholm*

Sight-seeing trip by motor-boat on Lake Mälaren and in Stockholm Harbour.

B 2. *The recently salvaged 17th century warship Vasa*

In 1628 the Royal Flagship VASA capsized and sank in Stockholm Harbour on its maiden voyage. It was recently salvaged and is now a major tourist attraction.

B 3. *The Royal Palace*

The Royal Palace, designed by Nicodemus Tessin the Younger, was built between 1690 and 1754.

B 4. *The National Art Gallery*

Nationalmuseum houses Sweden's largest and most valuable art collection, containing paintings, sculptures, drawings and handicraft by Swedish and foreign artists. At present there is also a unique exposition of gold from Peru (treasures of the Inca empire).

B 5. *Nordic Museum*

Nordiska Museet shows Swedish life and customs through the ages. Large and varied collections illustrating the development of culture, fashion and civilization in Scandinavia from the 16th century onwards: furniture, costumes, household articles, tools, etc.

B 6. *Skansen*

This open-air museum, situated on a hill from which one gets an excellent view of Stockholm, has a large collection comprising typical farmhouses, town buildings, mills, and belfries, a 17th century manor house, an 18th century church, etc.

B 7. *The old town of Stockholm*

The old town is situated on an island. It was here that Stockholm was founded more than 700 years ago. Cobbled alleys and twisting lanes still follow the original medieval street pattern. Antique shops by the dozen are to be found in the old 15th and 16th century houses.

B 8. *Vällingby*

Vällingby is one of the most ambitious of the satellite towns mushrooming in the suburbs of Stockholm. Ultra-modern apartment and one-family houses, a complete shopping centre, restaurants, cinemas, fountains, pools and ingeniously arranged play areas for children.

B 9. *Waldemarsudde*

The home of the late Prince Eugen, containing his art collection and many of his own paintings.

B 10. *Millesgården*

Former residence of the sculptor Carl Milles, now donated to the nation. Contains many works by Milles, laid out on terraces.

B 11. *Gustavsberg*

Visit to Gustavsbergs fabriker, a famous Swedish porcelain and ceramics factory.

B 12. *The Swedish design centre*

A permanent and comprehensive exhibition of handicrafts, industrial art and design, located in the ultra-modern Institute of Applied Arts.

B 13. *Exhibition of Swedish furniture*

Visit to the NK-Bo AB, a permanent exhibition of Swedish furniture.

B 14. *Exhibition of Swedish kitchen equipment*

Visit to Svensk Byggtjänst's permanent exhibition of kitchen equipment and building material.

B 15. *Test kitchen of a food industry*

Visit to the test kitchen of I.C.A. (wholesale food suppliers).

B 16. *Stockholm's leading department store*

A visit to Nordiska Kompaniet, the largest department store of Scandinavia.

B 17. *Stockholm's new freshfood market*

Visit to the new underground fresh food market in the modern commercial centre of Stockholm.

B 18.

This excursion has been cancelled.

B 19. *An experimental farm*

Visit to an experimental farm near Stockholm.

B 20. *Modern Swedish living — a social tour*

Visit to a hospital, a children's nursery, a modern collective laundry and an apartment belonging to an ordinary Swedish family.

ENTERTAINMENTS

SOCIAL EVENING IN THE CITY HALL

On Thursday, 16th August, at 20.00. Dancing and a buffet with wine have been arranged. Additional drinks will be available at members' own expense.

ENTERTAINMENT AT SKANSEN

On Friday, 17th August, at 20.00. A programme of folk dancing and a song recital by the famous tenor Nicolai Gedda has been arranged. Other attractions at Skansen include a Water Organ, a Spectacle de Son et Lumière and open-air dancing.

C 1 BALLET PERFORMANCE

On Tuesday, 21st August, at 20.00, at Kungliga Teatern (Royal Opera).

Miss Julie

Ballet by Birgit Cullberg, based on Strindberg's play. Composer: Ture Rangström. Choreographer: Birgit Cullberg.

The prodigal son

Five Biblical Paintings from Dalarna by Rune Lindström. Composer: Hugo Alfvén. Choreographer: Ivo Cramér.

C 2 OPERA PERFORMANCES

On Monday, 20th August, and Tuesday, 21st August, at the Court Theatre of Drottningholm.

Il maestro di musica

(The Music Master)

Comic opera in two acts. Music by Pietro Auletta and Giovanni Battista Pergolesi.

C 3

This performance has been cancelled.

C 4 CHAMBER MUSIC

On Tuesday, 21st August, at 20.00 in the Concert Hall, small auditorium.

The Kyndel Quartet

Joseph Haydn	String Quartet op. 20 No. 4 in D major
Franz Berwald	String Quartet in A minor
Hugo Wolf	Italian Serenade.

SCIENTIFIC PROGRAMME

*For a general view of the scientific programme
see the Timetable, p. 94*

THE SECTIONS

1. Logic, Foundations and History.
2. Algebra and Theory of Numbers.
3. Analysis.
4. Topology and Differential Geometry.
5. Algebraic Geometry.
6. Probability and Statistics.
7. Applied Mathematics, Mathematical Physics
and Numerical Analysis.
8. Education.

A star (*) indicates an address given by invitation of the Organizing Committee.

Rooms are named by a letter. The location of them is shown on the maps inside front and back covers.

Joint papers will in general be presented by the first named author.

WEDNESDAY, 15TH AUGUST

10.00–11.15

OPENING SESSION

Concert Hall

11.30–12.30

Addresses on the work of Fields Medallists

by

L. Gårding and H. Whitney

SECTION 2, ROOM C

15.30–16.00 ***J. T. Tate.** Galois cohomology in algebraic number fields.

16.30–17.00 ***Ju. V. Linnik.** Аддитивные задачи и собственные числа модулярных операторов. (Additive problems and eigenvalues of modular operators.)

SECTION 3, ROOM B

15.30–16.00 ***J. Wermer.** Maximal ideal spaces.

16.30–17.00 ***L. Carleson.** Interpolations by bounded analytic functions.

SECTION 4, ROOM D

15.30–16.00 ***R. H. Bing.** Embedding surfaces in 3-manifolds.

16.30–17.00 ***E. E. Floyd.** Some connections between cobordism and transformation groups.

SECTION 8, ROOM E

15.30–18.00 Session arranged by the I.C.M.I. First Topic: “Which subjects in modern mathematics and which applications of modern mathematics can find place in programmes of secondary school instruction?”, reported by J. G. Kemeny.

THURSDAY, 16TH AUGUST

SECTION 1, ROOM C

09.15–09.45 ***A. A. Markov.** О вычислимых инвариантах. (On computable invariants.)

SECTION 2, ROOM I

09.00–09.10 **J. Lambek.** Recent results on rings of quotients.

09.15–09.25 **R. E. Block and H. Zassenhaus.** The Lie algebras with a nondegenerate trace form.

09.30–09.40 **H. Freudenthal.** Real types and real representations of semisimple Lie algebras.

09.45–09.55 **J. M. Osborn.** Power-associative division algebras.

SECTION 2, ROOM N

09.00–09.10 **W. Kappe.** Gruppentheoretische Eigenschaften und charakteristische Untergruppen.

09.15–09.25 **O. H. Kegel.** Locally finite groups with a partition.

09.30–09.40 **S. Piccard.** Les groupes fondamentaux et les groupes quasi libres.

09.45–09.55 **H. Schiek.** Das Adjunktionsproblem der Gruppentheorie.

SECTION 2, ROOM O

09.00–09.10 **W. Sierpiński.** Sur les nombres de la forme $a^{2^n} + 1$.

09.15–09.25 **A. Aigner.** Folder der Art $ar^n + b$, welche nur teilbare Zahlen liefern.

09.30–09.40 **A. Rotkiewicz.** On Lucas numbers with two intrinsic prime divisors.

09.45–09.55 **D. E. Daykin.** Representations of integers.

SECTION 2, ROOM Q

09.00–09.10 **E. Marczewski.** Remarques sur les algèbres homogènes.

09.15–09.25 **K.-H. Diener.** A theorem on free algebras.

09.30–09.40 **J. R. Isbell.** Categories of algebras.

09.45–09.55 **E. Fried.** Isomorphism theorems for abstract algebras.

SECTION 3, ROOM B

- 09.15–09.45 ***L. Hörmander.** Existence, uniqueness and regularity of solutions of linear differential equations.

SECTION 3, ROOM E

- 09.00–09.10 **E. J. Akutowicz.** On spectral approximation of sequences.
 09.15–09.25 **B. Gyires.** A generalization of a theorem of Szegő.
 09.30–09.40 **P. R. Masani.** Isometric flows on Hilbert space.
 09.45–09.55 **W. Rudin.** The extension problem for positive-definite functions.

SECTION 3, ROOM F

- 09.00–09.10 **G. G. Gould.** A Stone-Čech-Alexandroff-type compactification.
 09.15–09.25 **E. R. Lorch.** Compactification, Baire functions and Daniell integrals.
 09.30–09.40 **M. L. Ricci and P. Rizzonelli.** On l^1 almost-periodical function.
 09.45–09.55 **B. Yood.** Non-commutative Banach algebras and almost periodic functions.

SECTION 3, ROOM G

- 09.00–09.10 **W. A. J. Luxemburg.** Ultrapowers in analysis.
 09.15–09.25 **R. O. Davies.** Covering the plane with denumerably many curves.
 09.30–09.40 **B. Rodríguez-Salinas Palero.** On the area problem.
 09.45–09.55 **S. N. Afriat.** On the irreflexivity of a relation associated with a positive vector function $x=f(u)$ ($u'x=1$).

SECTION 4, ROOM D

- 09.15–09.45 ***G. W. Whitehead.** Some aspects of stable homotopy theory.

SECTION 4, ROOM H

- 09.00–09.10 **A. Goetz.** Special connections associated with a given linear connection.

- 09.15–09.25 **L. Markus, L. Auslander and F. Hahn.** Minimal flows on nilmanifolds.
- 09.30–09.40 **L. W. Green.** Flows on solvmanifolds.
- 09.45–09.55 **C. S. Höning.** On arcwise connected topological groups.

SECTION 6, ROOM R

- 09.00–09.10 **C. L. Scheffer.** Bounds for the eigenvalues of Markov-matrices (continuous time).
- 09.15–09.25 **S. R. Foguel.** Contractions in Hilbert spaces and Markov processes.
- 09.30–09.40 **S. Orey.** Potential kernels for recurrent Markov chains.
- 09.45–09.55 **J. L. Snell.** Boundary theory for recurrent Markov chains.

SECTION 7, ROOM K

- 09.00–09.10 **W. H. McCrea.** A cosmological application of information theory.
- 09.15–09.25 **J. F. Traub.** On the informational efficiency of iteration functions.
- 09.30–09.40 **J. L. Barnes.** Functional transforms in information theory.
- 09.45–09.55 **Ch. J. Standish.** Remarks on the sampling theorem.

SECTION 7, ROOM L

- 09.00–09.10 **S. Drobot.** On variational principles of classical fields.
- 09.15–09.25 **G. Zin.** General theory of the Cerenkov radiation.
- 09.30–09.40 **R. T. Prosser.** On the existence of certain quantum fields.
- 09.45–09.55 **P. Kristensen.** On the mathematical formulation of quantum field theory.

10.30–11.30 ROOM A

- ***J. W. Milnor.** Differentiable manifolds and piecewise linear manifolds.

10.30–11.30 ROOM B

- ***L. V. Ahlfors.** Teichmüller spaces.

14.00–15.00 ROOM A

- ***L. Nirenberg.** Some aspects on linear and non-linear partial differential equations.

14.00–15.00 Room B

***J. Tits.** Groupes simples et géométries associées.

SECTION 1, ROOM D

15.30–16.00 ***J. Łoś.** Remarks on foundations of probability. Semantical interpretations of the probability of formulas.

SECTION 2, ROOM C

15.30–16.00 ***M. Auslander.** Modules over unramified regular local rings.

16.30–17.00 ***P. S. Novikov.** Алгоритмические вопросы алгебры. (Algorithmic problems of algebra.)

SECTION 2, ROOM N

15.30–15.40 **R. W. Carter.** Nilpotent self-normalizing subgroups of certain insoluble groups.

15.45–15.55 **G. Thierrin.** Une caractérisation des groupes d'ordre premier.

16.00–16.10 **R. Brauer.** On finite groups of even order.

16.15–16.25 **H. W. Wielandt.** Bedingungen für die Konjugiertheit von Untergruppen endlicher Gruppen.

16.30–16.40 **D. Held.** Engelsche Elemente in endlichen Gruppen.

16.45–16.55 **H. Heineken.** Probleme in Gruppen mit Engelbedingung.

17.00–17.10 **M. F. Newman.** Embedding theorems for finite p -groups.

17.15–17.25 **P. M. Weichsel.** On critical p -groups.

SECTION 2, ROOM O

15.30–15.40 **S. A. Amitsur.** Rational identities and foundation of geometry.

15.45–15.55 **V. Dlab.** The axiomatization of dependence relations.

16.00–16.10 **C. M. Fulton.** Vector space axioms for geometry.

16.15–16.25 **R. Rado.** A theorem on vector spaces.

16.30–16.40 **V. Klee.** The generation of affine hulls.

16.45–16.55 **B. Frontera.** A necessary condition for the reducibility of finite lattices.

SECTION 3, ROOM B

- 15.30–16.00 ***M. Kuranishi.** On deformations of complex structures.
 16.30–17.00 ***R. Narasimhan.** The Levi problem in the theory of functions of several complex variables.

SECTION 3, ROOM F

- 15.30–15.45 **I. N. Vekua.** Compactness of families of solutions of elliptic differential equations
 15.50–16.05 **O. A. Ladyženskaja.** Квазилинейные уравнения эллиптического и параболического типов. (Quasi-linear equations of elliptic and parabolic types.)
 16.10–16.25 **O. A. Oleinik.** Об уравнениях пограничного слоя. (On the equations of a boundary layer.)
 16.30–16.40 **L. E. Payne.** Inequalities for uniformly elliptic operators with application to the Cauchy problem.
 16.45–16.55 **P. C. Fife.** Schauder-type estimates for a degenerating parabolic equation.
 17.00–17.10 **K. Habetha.** Über das Maximumprinzip bei Lösungen elliptisch-parabolischer Differentialgleichungen 2. Ordnung.
 17.15–17.25 **P. Brousse.** Problèmes elliptiques mixtes du quatrième ordre.

SECTION 3, ROOM G

- 15.30–15.45 **M. A. Naimark.** О фактор-представлениях локально компактной группы. (On factor representations of a locally compact group.)
 15.50–16.00 **J. M. G. Fell.** The topology of induced representations of groups.
 16.05–16.15 **R. Takahashi.** La série discrète dans le groupe de De Sitter.
 16.20–16.30 **P. Civin.** Maximal ideals in the second conjugate algebra of a group algebra.
 16.35–16.45 **R. R. Phelps.** Extremal operators are multiplicative.
 16.50–17.00 **E. Y. Domar.** Closed primary ideals in certain Banach algebras.

- 17.05–17.15 **J. Korevaar.** Distribution proof of Wiener's Tauberian theorem.
- 17.20–17.30 **K. E. Aubert.** Convex ideals in ordered group algebras.

SECTION 3, ROOM Q

- 15.30–15.40 **H. L. Turrittin.** Reduction of ordinary differential equations to the Birkhoff canonical form.
- 15.45–15.55 **C. Vinti and E. Baiada.** Sur la validité de la propriété fondamentale de la transformée de Fourier.
- 16.00–16.10 **G. Johnson.** Representation of harmonic functions in the unit circle.
- 16.15–16.25 **R. San Juan Llosá.** A decomposition of functions with asymptotic expansion.
- 16.30–16.40 **A. Plans.** Ergebnisse Über eine gleich-Ähnlichkeitsoperator im Hilbertraum.
- 16.45–16.55 **D. Marković.** Sur la limite inférieure des modules des zéros des polynômes de deux variables.
- 17.00–17.10 **H. S. Wilf.** A generalization of the inequality of arithmetic and geometric means and applications.
- 17.15–17.25 **T. H. Southard.** Some properties of Chebyshev polynomials for the unit square.

SECTION 3, ROOM R

- 15.30–15.40 **J. Nash.** The Cauchy problem for the equations of a general fluid.
- 15.45–15.55 **J. E. Odhnoff.** Some free boundary problems for the Laplace equation.
- 16.00–16.15 **A. V. Bicadze.** Об уравнениях смешанного типа с тремя независимыми переменными. (On equations of mixed type in three independent variables.)
- 16.20–16.30 **R. Bojanic.** Application of Bergman operators to the theory of equations of mixed type.
- 16.35–16.45 **C. A. Swanson.** Elliptic operators and small handles.
- 16.50–17.00 **M. Marden.** On the critical points of Green's function.
- 17.05–17.15 **R. Leis.** Eine Übertragung des Schwarzschen Alternieren-

den Verfahrens auf Randwertprobleme der Helmholtz-schen Schwingungsgleichung.

17.20–17.30 **R. C. Buck.** Global solutions of differential equations.

SECTION 4, ROOM H

15.30–15.40 **G. Lederer.** A generalization of the notion of connectedness.

15.45–15.55 **R. G. Lintz.** On a certain topological invariant.

16.00–16.10 **A. H. Stone.** Classification of absolute Borel spaces.

16.15–16.30 **V. I. Ponomarev.** Проекционные спектры и топологические пространства. (Projective spectra and topological spaces.)

16.35–16.45 **A. Császár.** Complétion d'espaces non-séparés.

16.50–17.00 **G. Aquaro.** About some completions of uniform spaces.

17.05–17.15 **R. Morales.** Distanced spaces in a partially ordered group.

17.20–17.30 **L. M. Blumenthal.** New contributions to distance geometry.

17.35–17.45 **D. B. Doitchinov.** On the uniform embedding in Hilbert spaces.

17.50–18.00 **J. Novak.** The topological convergence groups.

SECTION 4, ROOM I

15.30–15.40 **J. Molnár.** Über Kreislagerungen.

15.45–15.55 **L. W. Danzer.** Überdeckungen mit kongruenten Kugeln und Durchschnittseigenschaften von Kugelfamilien im E^n .

16.00–16.10 **G. Ewald.** Konvexe Funktionen in der Theorie konvexer Körper.

16.15–16.25 **G. C. Shephard.** Projection functions of a convex body.

16.30–16.45 **B. B. Venkov.** Нормальные триангуляции в выпуклом конусе. (Normal triangulations of a convex cone.)

16.50–17.00 **K. Post.** Star extension of plane convex sets.

SECTION 4, ROOM P

15.30–15.40 **J. Mennicke.** Einige Ergebnisse zur Flächentopologie.

15.45–15.55 **P. Bergau.** Über reguläre Zerlegungen geschlossener Flächen (regular maps).

16.00–16.10 **A. Andreatta.** A few remarks on the relative theory of graphs.

- 16.15–16.25 **G. Ringel.** Selbstkomplementäre Graphen.
16.30–16.40 **W. T. Tutte.** Enumeration of planar maps.
16.45–16.55 **G. A. Dirac.** Remarks on the four colour conjecture and the theory of graphs.
17.00–17.10 **R. Calapso.** Sulle congruenze di Ribancour.

SECTION 6, ROOM D

- 16.30–17.00 ***K. Itô.** The Brownian motion and tensor fields on Riemannian space.

SECTION 7, ROOM K

- 15.30–15.40 **J. Winogradzki.** Formalisme tensoriel et spinoriel incluant les parités.
15.45–15.55 **J.-L. Destouches.** Some mathematical problems connected with the functional theory of particles.
16.00–16.10 **F. H. Brownell.** An exact computation model for the Lamb shift.
16.15–16.25 **H. W. Kuhn.** On the Pauli exclusion principle with 2-body interactions.
16.30–16.40 **J. McConnell.** Rotations and angular momenta.
16.45–16.55 **A. J. Coleman.** Structure of the Fermion density matrix.
17.00–17.10 **J. L. Martin.** Point interactions and the Lee model.

SECTION 7, ROOM L

- 15.30–15.40 **A. Ghaffari.** On an extension of the stroboscopic method.
15.45–15.55 **A. F. P. E. Huaux.** Sur l'existence de solutions périodiques de certaines classes d'équations différentielles.
16.00–16.10 **N. H. Forbat.** Détermination approchée de la solution périodique d'une équation différentielle hétéronome non linéaire.
16.15–16.25 **S. Lundquist.** On a stability problem in reactor theory.
16.30–16.45 **R. V. Gamkrelidze.** О скользящих оптимальных режимах. (On slipping optimal regimes.)

- 16.50–17.00 **B. A. Fleishman.** Superposition of synchronous periodic regimes in relay control systems.
- 17.05–17.20 **D. V. Anosov.** Грубость геодезических потоков на компактных римановых многообразиях отрицательной кривизны. (The roughness of geodesic currents in compact Riemannian manifolds of negative curvature.)

SECTION 8, ROOM E

- 15.30–18.00 Session arranged by the I.C.M.I. Second Topic: “Connections between arithmetic and algebra in the mathematical instruction of children up to the age of 15”, reported by S. Straszewicz.

FRIDAY, 17TH AUGUST

SECTION 1, ROOM P

- 09.00–09.10 **M. Stojaković.** On the decidability of the four colour problem.
- 09.15–09.25 **W. W. Boone.** Thue system with word problem of any preassigned recursively enumerable degree of unsolvability.
- 09.30–09.40 **A. Tarski.** Undecidability of the elementary theory of commutative semigroups.
- 09.45–09.55 **D. Tamari.** The associativity problem for finite monoids is unsolvable and equivalent to the word problem for finitely presented groups (WPG).
- 10.00–10.10 **S. Ginsburg and G. F. Rose.** Some recursively unsolvable problems in ALGOL-like languages.
- 10.15–10.25 **J. Bečvář.** Finite and combinatorial automata.

SECTION 2, ROOM E

- 09.00–09.10 **D. Puppe.** Korrespondenzen in abelschen Kategorien.
- 09.15–09.25 **J.-E. I. Roos.** On higher-dimensional analogies of Grothendieck groups of abelian categories.
- 09.30–09.40 **D. Zelinsky and A. Rosenberg.** Amitsur's complex for inseparable fields.
- 09.45–09.55 **J. A. Eagon and D. G. Northcott.** A generalization of the Koszul complex.
- 10.00–10.10 **H. Bass.** Projective modules and vector bundles.
- 10.15–10.25 **C. Faith and Y. Utumi.** Quotient rings.

SECTION 2, ROOM N

- 09.00–09.10 **M. Newman.** Diagonal quadratic forms.
- 09.15–09.25 **H. Klingen.** Fourierentwicklung von Modulformen.
- 09.30–09.40 **K.-B. Gundlach.** Die Bestimmung der Funktionen zur Hilbertschen Modulgruppe des Zahlkörpers $P(\sqrt{5})$.
- 09.45–09.55 **H. Cohn.** On modular invariants for some fundamental domains in two complex variables.
- 10.00–10.10 **B. Schoeneberg.** Eisensteinsche Reihen von Primzahlstufe.

SECTION 2, ROOM O

- 09.00–09.10 **M. Hall Jr.** Note on the Mathieu group M_{12} .
- 09.15–09.25 **H. S. M. Coxeter.** The symmetry group of the regular complex polygon $p_1 \{q\} p_2$.
- 09.30–09.40 **W. L. Edge.** An orthogonal group of order $2^{13} \cdot 3^5 \cdot 5^2 \cdot 7$.
- 09.45–09.55 **L. Kovács, J. Neubüser and B. H. Neumann.** Endliche $E_{p,n}$ -Gruppen.

SECTION 3, ROOM D

- 09.00–09.30 ***P. Malliavin.** Sur quelques problèmes d'analyse harmonique reliés à la théorie des fonctions d'une variable complexe.
- 10.00–10.30 ***J. A. Jenkins.** On normalization in the General Coefficient Theorem.

SECTION 3, ROOM F

- 09.00–09.15 **T. A. Sarymsakov.** Топологические полуполя и некоторые их применения. (Topological semi-fields and some of their applications.)
- 09.20–09.30 **R. E. Fullerton.** Order bases in a linear topological space.
- 09.35–09.45 **W. Orlicz.** On a class of modular spaces.
- 09.50–10.00 **G. L. Krabbe.** A spectral theorem for operators into an interpolation space.
- 10.05–10.15 **D. F. Cudia.** Smoothness.
- 10.20–10.30 **A. Pelczyński and S. Rolewicz.** Best norms with respect to isometry groups in normed linear spaces.

SECTION 3, ROOM G

- 09.00–09.10 **J. Albrycht.** L^p -spaces, with mixed norm, for finitely additive set functions.
- 09.15–09.25 **F. Bertolini.** Additive measure and additive integration on a Boolean ring.
- 09.30–09.40 **A. Evans.** Non-absolute measures.
- 09.45–09.55 **R. Henstock.** New integrals.
- 10.00–10.10 **M. Metivier.** Sur les systèmes projectifs de mesures vectorielles.
- 10.15–10.25 **C. Taam.** Integration on locally compact Hausdorff spaces.

SECTION 3, ROOM Q

- 09.00–09.10 **M. Kuczma.** On the Schroeder equation.
- 09.15–09.25 **J. Aczél.** Some recent results and problems on functional equations.
- 09.30–09.40 **H. P. Thielman.** Functional equation arising in elasticity.
- 09.45–09.55 **J. J. Schäffer.** Linear differential equations and function spaces variation of the equation.
- 10.00–10.10 **J. J. Levin and S. S. Shatz.** Riccati algebras.
- 10.15–10.25 **A. K. Aziz and J. B. Diaz.** On a mean value theorem of the differential calculus of vector valued functions, and uniqueness theorems for ordinary differential equations in a linear normed space.

SECTION 3, ROOM R

- 09.00–09.10 **W. J. Trjitzinsky.** Methods of totalization in representations of functions of a complex variable.
- 09.15–09.25 **L. Alpár.** Sur certaines transformées des séries de puissance absolument convergentes sur la frontière de leur cercle de convergence.
- 09.30–09.40 **M. Burnat.** Die spektrale Darstellung des Operators $Lu = u'' + q(x)u$ ($q(x+a) = q(x)$) im Raume der fastperiodischen Funktionen.
- 09.45–09.55 **M. Rosenblatt.** Asymptotic behavior of eigenvalues for a class of integral equations.
- 10.00–10.10 **H. Widom.** Eigenvalues of N -dimensional convolution operators.
- 10.15–10.25 **G. L. Isaacs.** On fractional differences.

SECTION 4, ROOM C

- 09.00–09.30 ***Ju. M. Smirnov.** Некоторые вопросы равномерной топологии. (Some questions in the theory of uniform topology.)
- 10.00–10.30 ***M. F. Atiyah.** The Grothendieck ring in geometry and topology.

SECTION 4, ROOM H

- 09.00–09.10 **D. Blanuša.** Isometric imbeddings of euclidean spaces in spherical spaces.
- 09.15–09.25 **E. Fadell.** Whitney duality for locally flat topological manifolds.
- 09.30–09.40 **J. A. Wolf.** Homogeneity of multiply connected Riemannian manifolds.
- 09.45–09.55 **Ch.-Ch. Hsiung.** Vector fields and infinitesimal transformations on Riemannian manifolds with boundary.
- 10.00–10.10 **M. L. Curtis and R. K. Lashof.** On product and ball-bundle neighbourhoods.
- 10.15–10.25 **I. Berstein.** On cogroups in the categories of graded algebras and of c.s.s. groups and on principal cofibre bundles.

SECTION 5, ROOM I

- 09.00–09.10 **L. Godeaux.** Surfaces algébriques régulières dépourvues de courbe canonique possédant un système bicanonique irréductible.
- 09.15–09.25 **K. Reinhardt.** Zur Reduktionstheorie algebraischer Mannigfaltigkeiten.
- 09.30–09.40 **F. Oort.** Multiple algebraic curves.
- 09.45–09.55 **H. Salzmann.** Flat topological planes.
- 10.00–10.10 **E. Kunz.** Differentialformen 2. Gattung in algebraischen Funktionenkörpern der Charakteristik p .
- 10.15–10.25 **P. Dembowski.** Partial planes with parallelism.

SECTION 6, ROOM L

- 09.00–09.10 **I. J. Good.** A compromise between credibility and subjective probability.
- 09.15–09.25 **G. Bodiou.** Caractérisation du conditionnement quantique des lois de probabilité.
- 09.30–09.40 **R. B. Leipnik, H. S. Green and J. E. Maxfield.** Algebras of lattice paths and the Ising problem.
- 09.45–09.55 **K. Urbanik.** Applications of information theory in quantum mechanics.

- 10.00–10.10 **T. Lewis.** Quasicorrective errors.
10.15–10.25 **A. Prékopa.** On stochastic programming.

SECTION 7, ROOM B

- 09.00–09.30 ***J. Moser.** New results about the stability of periodic motions.
10.00–10.30 ***A. Wightman.** Foundations of quantum field theory and the connection with the theory of functions of several complex variables.

SECTION 7, ROOM K

- 09.15–09.25 **A. R. Galmarino.** On the cardinality of solutions of four-person constant-sum games.
09.30–09.40 **M. Dresher.** A zero-sum two-person game in sampling from a finite population.
09.45–09.55 **W. Karush and R. E. Bellman.** On the maximum transform.
10.00–10.10 **T. C. Koopmans and R. Williamson.** Utility and Time: An axiomatic discussion.
10.15–10.25 **R. J. Aumann.** Markets with a continuum of traders.

11.00–12.00 Room A

- *E. B. Dynkin.** Марковские процессы и задачи анализа. (Markov processes and problems in analysis.)

11.00–12.00 Room B

- *A. Borel.** Reduction of quadratic forms and algebraic groups.

14.00–15.00 Room A

- *I. M. Gel'fand.** Автоморфные функции и теория представлений. (Automorphic functions and representation theory.)

14.00–15.00 Room B

- *M. H. A. Newman.** Geometrical topology.

SECTION 1, ROOM P

- 15.30–15.40 **A. H. Aaboe.** Pre-ptolemaic Greek astronomy.
- 15.45–16.00 **A. I. Mal'cev.** О теориях I-й степени некоторых классов групп и колец. (Theories of the first order of some classes of groups and rings.)
- 16.05–16.20 **A. D. Taïmanov.** Характеристика элементарных классов моделей. (The characteristic of elementary classes of models.)

SECTION 2, ROOM D

- 15.30–16.00 ***M. Suzuki.** A class of doubly transitive permutation groups.

SECTION 2, ROOM N

- 15.30–15.40 **D. Shanks.** An inductive formulation of the Riemann hypothesis.
- 15.45–15.55 **T. M. Apostol.** Bohr's equivalence relation for Dirichlet series.
- 16.00–16.10 **C. N. Moore.** On the frequency of prime patterns.

SECTION 2, ROOM O

- 15.30–15.40 **J. Guérindon.** Sur la topologie spectrale des anneaux commutatifs.
- 15.45–15.55 **J. P. Lafon.** Remarque sur le lemme bilinéaire de Samuel.
- 16.00–16.10 **R. M. Cohn.** Linked ideals.
- 16.15–16.25 **D. D. Miller.** Matrices over commutative rings.

SECTION 3, ROOM B

- 15.30–16.00 ***J. Leray.** Un prolongement de la transformation de Laplace.

SECTION 3, ROOM E

- 15.30–15.40 **A. Huber.** Ein räumliches Analogon des Wiman-Heinschen Satzes.
- 15.45–15.55 **M. G. Arsove.** Radial limit sets for subharmonic functions.
- 16.00–16.10 **B. Fuglede.** Quasi-continuity of potentials of finite energy.
- 16.15–16.25 **R. Maude.** Conditions for positive Φ -capacity.

SECTION 3, ROOM F

- 15.30–15.40 **G. Glaeser.** Algèbres de fonctions composées différentiables.
 15.45–15.55 **S. Łojasiewicz.** Triangulation of real analytic sets.
 16.00–16.10 **G. Freud.** On local differentiability of higher order of functions.
 16.15–16.25 **S. Marcus.** On approximate derivative.

SECTION 3, ROOM G

- 15.30–15.40 **E. Calabi.** Operational calculus in several variables.
 15.45–16.00 **V. S. Vladimirov.** О некоторых обобщениях теоремы Палля-Винера-Шварца. (Some generalizations of the Paley-Wiener Schwartz theorem.)
 16.05–16.15 **G. K. Kalisch.** Titchmarsh's convolution theorem and invariant subspaces.
 16.20–16.30 **Z. Zielezny.** Fourier transforms of distributions with one-sided bounded carriers.

SECTION 3, ROOM Q

- 15.30–15.40 **K. Behnert-Smirnov.** Eine notwendige und hinreichende Bedingung der gleichgradigen Stetigkeit von zweimal differenzierbaren Funktionenmengen.
 15.45–15.55 **E. Vincze.** Eine neuere elementare Lösungsmethode der Funktionalgleichungen von Typen $f(x+y) = \sum g_i(x) h_i(y)$.
 16.00–16.10 **K. Chandrasekharan and R. Narasimhan.** On the approximate functional equation for a class of zeta-functions.
 16.15–16.25 **B. Kjellberg.** On the growth of certain entire functions.

SECTION 4, ROOM H

- 15.30–15.45 **L. V. Keldyš.** Непрерывные разбиения Евклидова пространства. (Continuous decompositions of Euclidean space.)
 15.50–16.00 **L. N. Mann and J. C. Su.** Actions of elementary p -groups on manifolds.
 16.05–16.15 **A. J. Ward.** The hyperspace of curves in a uniform space.
 16.20–16.30 **O. G. Harrold, Jr.** Locally peripherally euclidean spaces are locally euclidean, II.

SECTION 4, ROOM I

- 15.30–15.40 **S. Golab.** Algèbre des objets géométriques de Pencov.
15.45–15.55 **I. Cattaneo-Gasparini.** On Cartan's projective connexions.
16.00–16.10 **M. Kucharzewski.** Zum Begriff der Komitante.
16.15–16.25 **P. J. van Albada.** On a generalization of a problem of H. Steinhaus.

SECTION 6, ROOM C

- 15.30–16.00 ***Ju. V. Prohorov.** О предельных теоремах. (On limit theorems.)

SECTION 7, ROOM K

- 15.30–15.40 **W. Gautschi.** Construction of Gaussian quadrature formulas.
15.45–15.55 **J. J. Sopka.** Some abstract aspects of numerical quadrature.
16.00–16.10 **H. E. Salzer.** Equally-weighted formulas for numerical differentiation.
16.15–16.25 **T. Busk.** Derivatives computed by ordinary interpolation methods.

SECTION 7, ROOM L

- 15.30–15.45 **L. D. Faddeev.** Строение резольвенты оператора энергии системы трех частиц и задача рассеяния. (Construction of the resolvent of the energy operator for a three particle system and the scattering problem.)
15.50–16.00 **A. González Domínguez.** A factorization theorem for scattering matrices.
16.05–16.15 **C. H. Wilcox.** Diffraction in inhomogeneous anisotropic media.
16.20–16.30 **H. A. Lauwerier.** A note on Sommerfeld's problem of diffraction by a semi-infinite screen.

SATURDAY, 18TH AUGUST

SECTION 1, ROOM P

- 09.00–09.10 **E. Mendelson.** On some recent criticism of Church's thesis.
- 09.15–09.25 **R. L. Goodstein.** A recursive lattice.
- 09.30–09.40 **C.-Y. Lee.** A self-reproducing property of Turing machines.
- 09.45–09.55 **G. H. Müller.** Charakterisierung einer Klasse von rekursiven Funktionen.
- 10.00–10.10 **D. Rödding.** Darstellungen der (im Kalmárschen Sinne) elementaren Funktionen.
- 10.15–10.25 **T. A. Skolem.** A theorem on recursively enumerable sets.
- 10.30–10.40 **M. D. Davis.** Quantification theory as a free variable calculus.
- 10.45–10.55 **R. M. Smullyan.** Analytic natural deduction.
- 11.00–11.10 **E. R. Stabler.** Mathematics and the "Central Problem of our time."

SECTION 2, ROOM B

- 09.00–09.30 ***J. G. Thompson.** Two results about finite groups.
- 10.00–10.30 ***B. Dwork.** A deformation theory for the zeta function of a hypersurface defined over a finite field.
- 11.00–11.30 ***M. Kneser.** Einfach zusammenhängende algebraische Gruppen in der Arithmetik.

SECTION 2, ROOM N

- 09.00–09.10 **F. Papangelou.** On the order topologies of an Abelian lattice-group.
- 09.15–09.25 **A. D. Sands.** On the factorization of Abelian groups.
- 09.30–09.40 **K. Honda.** On Abelian p -groups with special principal systems.
- 09.45–09.55 **H. H. Teh.** Delta sum of partially ordered groups.
- 10.00–10.10 **F. Loonstra.** Subgroups of direct products.
- 10.15–10.25 **J. Szép.** Über die Nichteinfachheit von faktorisierbaren Gruppen.

- 10.30–10.40 **P. Crawley and B. Jónsson.** Refinements for infinite direct decompositions of groups.
- 10.45–11.00 **J. I. Manin.** О классификации формальных абелевых групп. (On the classification of formal Abelian groups.)

SECTION 2, ROOM O

- 09.00–09.10 **J. A. Kalman.** A class of non-distributive rings.
- 09.15–09.25 **J. C. Abbott.** The imbedding of an implication algebra in a Boolean algebra.
- 09.30–09.40 **E. C. Johnsen.** Matrix rational completions satisfying the v, k, λ incidence equation.
- 09.45–09.55 **H. Hanani.** Tactical configurations.
- 10.00–10.10 **V. Bohun-Chudyniv.** On loops represented by two-sided triplets.
- 10.15–10.25 **V. Bohun-Chudyniv.** On a transformator of multiplicative systems.
- 10.30–10.40 **A. Gloden.** Une méthode pour construire des systèmes multigrades normaux.
- 10.45–11.00 **V. V. Vagner.** Обобщенные группы частичных преобразований. (Generalized groups of partial transformations.)

SECTION 3, ROOM D

- 09.00–09.30 ***S. Agmon.** Unique continuation and lower bounds for solutions of abstract differential equations.
- 10.00–10.30 ***L. Nachbin.** Résultats récents et problèmes de nature algébrique en théorie de l'approximation.
- 11.00–11.30 ***A. Andreotti.** Complex pseudoconcave spaces and automorphic functions.

SECTION 3, ROOM F

- 09.00–09.10 **T. Peyovitch.** Propriétés asymptotiques d'une classe d'équations différentielles.
- 09.15–09.25 **M. Greguš.** Über die asymptotischen Eigenschaften der Lösungen der linearen Differentialgleichung dritter Ordnung.

- 09.30–09.40 **J. O. C. Ezeilo.** A property of the space trajectories of a third order differential equation.
- 09.45–09.55 **G. G. Legatos.** Sur une classe de solutions d'une équation différentielle ordinaire non linéaire du second ordre.
- 10.00–10.10 **P. Seibert and J. Auslander.** Liapunov functions and prolongations in dynamical systems.
- 10.15–10.25 **C. S. Coleman.** Generalized Lyapunov numbers.
- 10.30–10.40 **R. D. Driver.** Stability of solutions of a functional-differential equation of neutral type.
- 10.45–11.00 **V. I. Arnold.** Теория возмущений и проблема устойчивости планетных систем. (Perturbation theory and the problem of stability for planetary systems.)
- 11.05–11.20 **I. Vrkoč.** Устойчивость при постоянно действующих возмущениях. (Stability under constantly acting perturbations.)
- 11.25–11.35 **F. Wolf.** Singular elliptic boundary problems.

SECTION 3, ROOM G

- 09.00–09.10 **L. S. Bosanquet.** A convexity theorem for fractional derivatives.
- 09.15–09.25 **A. Peyerimhoff.** Ein Mittelwertsatz für absolute Rieszsche Summierbarkeit.
- 09.30–09.40 **B. Kuttner.** A Tauberian theorem for discontinuous Riesz means.
- 09.45–09.55 **D. C. Russel.** An inclusion relation between Riesz and Riemann summability.
- 10.00–10.10 **F. C. Hsiang.** On the strong Riesz summability of an infinite series.
- 10.15–10.25 **N. D. Obrechhoff.** Sur les séries doubles absolument sommables par les moyennes arithmétiques.
- 10.30–10.40 **R. A. Raimi.** Invariant means and matrix summability methods.
- 10.45–10.55 **L. Ilieff.** Konvergente Abschnittsfolgen gewisser Klassen von Reihen.
- 11.00–11.10 **M. R. Mehdi.** Linear transformations on function spaces determined by convergence in measure.

- 11.15–11.25 **K. Tandori.** Über die unbedingte Konvergenz der Orthogonalreihen.

SECTION 3, ROOM I

- 09.00–09.10 **J. L. Ullman.** Tchebycheff quadrature is possible on an infinite interval.
- 09.15–09.25 **J. H. Ahlberg and E. N. Nilson.** Convergence properties of the spline fit.
- 09.30–09.40 **P. Szász.** On generalized quasi-step parabolas.
- 09.45–09.55 **W. G. Strang.** Polynomial approximation of Bernstein type.
- 10.00–10.10 **P. O. Runck.** Notwendige und hinreichende Bedingungen für das Konvergenzverhalten von Interpolationspolynomen.
- 10.15–10.25 **G. G. Lorentz.** Degree of approximation by polynomials with positive coefficients.
- 10.30–10.45 **S. L. Sobolev.** Некоторые вопросы теории численного интегрирования и интерполяции функций многих независимых переменных. (Quelques questions de la théorie des intégrations numériques et de l'interpolation pour les fonctions de plusieurs variables indépendantes.)
- 10.50–11.05 **S. L. Sobolev.** Формулы численного интегрирования на сфере. (Les formules de l'intégration numérique sur la surface de sphère.)
- 11.10–11.20 **P. L. Butzer.** Approximation problems for solutions of partial differential equations.
- 11.25–11.35 **V. Dajović.** Sur l'existence des valeurs limites d'une fonction minimale de classe H_δ ($\delta > 0$) et d'une fonction de même classe ($\delta > 1$).

SECTION 4, ROOM C

- 09.00–09.30 ***J. R. Stallings.** The topological unknottedness of certain spheres.
- 10.00–10.30 **M. Katětov.** Allgemeine Stetigkeitsstrukturen.
- 11.00–11.30 ***T. Ganea.** Some numerical homotopy invariants.

SECTION 4, ROOM H

- 09.00–09.10 **E. C. Zeeman.** Topology of the brain.
- 09.15–09.25 **O. K. Jussila.** On a theorem of Floyd.
- 09.30–09.40 **O. A. Laudal.** Cohomologie locale. Applications.
- 09.45–10.00 **M. M. Postnikov.** Аксиоматические определения групп когомологий. (Axiomatic definitions of cohomology groups.)
- 10.05–10.15 **D. B. A. Epstein.** Steenrod operations in Abelian categories.
- 10.20–10.30 **M. G. Barratt.** The structure of primary homotopy operations.
- 10.35–10.45 **F.-W. Bauer.** Ein Funktor, der Homologie in Homologie überführt.
- 10.50–11.05 **G. S. Čogošvili.** Диаграммы групп с внешними умножениями и некоторые их применения в теории гомологии. (Diagrams of groups with outer multiplication and some of their applications in homology theory.)
- 11.10–11.20 **B. Steer.** The Samelson product in F^n .

SECTION 6, ROOM Q

- 09.00–09.10 **A. K. Bhatti.** On estimation of minimum variance.
- 09.15–09.25 **A. C. Cohen, Jr.** Progressively censored samples.
- 09.30–09.40 **G. P. Patil.** Best unbiased estimation for generalized power series distribution.
- 09.45–09.55 **M. Ziaud-Din.** On contributions in symmetric functional & k -statistics.
- 10.00–10.10 **D. R. Brillinger.** Tukey's general method of setting confidence limits (The Jack-knife) applied to the case of maximum likelihood estimates.
- 10.15–10.25 **J. Gurland.** Estimation and testing hypotheses for the negative binomial and other distributions.
- 10.30–10.40 **F. Eicker.** On consistent and asymptotically normal estimators for classes of linear regressions.
- 10.45–10.55 **B. Schneider.** Die Verteilung von Schätzwerten bei nicht-linearer Regression.
- 11.00–11.10 **R. W. Hiorns.** Statistical estimation for linear compound models.
- 11.15–11.25 **V. Vranić.** On the use of duality in the theory of correlation.

SECTION 6, ROOM R

- 09.00–09.15 **B. A. Sevast'janov.** Предельные теоремы для ветвящихся случайных процессов с диффузией. (Limit theorems for branching stochastic processes with diffusion.)
- 09.20–09.30 **W. A. O'N. Waugh.** Growth rates for birth processes.
- 09.35–09.45 **D. L. Iglehart.** Competition processes.
- 09.50–10.00 **J. M. Gani.** On the age-distribution of replaceable ranked elements.
- 10.05–10.15 **A. T. Bharucha-Reid.** Equivalent Markov processes.
- 10.20–10.30 **H. Dinges.** Zur strengen Markoff-Eigenschaft.
- 10.35–10.45 **W. v. Waldenfels.** Der infinitesimale erzeugende Operator eines stationären Markowprozesses.
- 10.50–11.00 **H. Furstenberg.** A Poisson formula for semi-simple Lie groups.
- 11.05–11.15 **S. S. Wilks.** Multivariate statistical outliers.
- 11.20–11.30 **S. Nabeya.** On Pearson-Geary criteria in the analysis of variance.

SECTION 7, ROOM K

- 09.00–09.10 **B. R. Seth.** Turning point analysis of plastic deformation.
- 09.15–09.25 **L. Bass.** The motion of test charges in rapidly oscillating electromagnetic fields.
- 09.30–09.40 **L. G. Chambers.** Propagation in dispersive media.
- 09.45–09.55 **W. F. Eberlein.** The spin model of space-time.
- 10.00–10.10 **P. E. Kustaanheimo.** Über die Spinorringalgebra.
- 10.15–10.25 **R. A. Guy.** Sur une géométrisation des champs gravifique et électromagnétique.
- 10.30–10.40 **J. Klein.** Notion de tenseur force en mécanique classique et relativiste.
- 10.45–10.55 **C. Cattaneo.** On Mach's principle.
- 11.00–11.10 **M. Q. Pham.** Dynamique analytique relativiste du point.
- 11.15–11.25 **A. H. Taub.** Consequences of variational principles in general relativity.

SECTION 7, ROOM L

- 09.00–09.10 **W. A. Nash.** Buckling of thin spherical shell resting on an elastic foundation.

- 09.15–09.25 **E. Isaacson.** An aspherical membrane under internal pressure.
- 09.30–09.40 **A. Dou.** Elastic behavior of a longitudinally welded cylinder.
- 09.45–09.55 **H. B. Keller, J. B. Keller and E. L. Reiss.** Buckled states of circular plates.
- 10.00–10.10 **J. H. Bramble and L. E. Payne.** Some inequalities for vector functions with applications in elasticity.
- 10.15–10.25 **C. M. Ablow.** Initial motion of an elastic earth under blast loading.
- 10.30–10.40 **R. A. Ross.** The fundamental solution of the thermoelastic wave equation.
- 10.45–10.55 **G. Paria.** Longitudinal plane waves through a thermoelastic solid in magnetic fields.
- 11.00–11.10 **Z. Alterman.** Propagation of a seismic pulse in a sphere.
- 11.15–11.25 **J. L. Synge.** The Hamiltonian method applied to water waves.

SECTION 8, ROOM E

- 09.00–11.30 Session arranged by the I.C.M.I. Third Topic: "Education of the teachers for the various levels of mathematical instruction", reported by K. Piene.

MONDAY, 20TH AUGUST

SECTION 1, ROOM P

- 09.00–09.10 **L. Kalmár.** Some heuristical ideas about a qualitative theory of information.
- 09.15–09.25 **R. O. Gandy.** Recursive functionals of types 3 and 4.
- 09.30–09.40 **G. E. Sacks.** Recursively enumerable degrees.
- 09.45–09.55 **A. Nerode.** Inequalities in recursive equivalence types.
- 10.00–10.10 **A. Oberschelp.** Klassen als “Urelemente” in der Mengenlehre.
- 10.15–10.25 **C. Eisele-Halpern.** Fermatian inference and De Morgan’s syllogism of transposed quantity in Peirce’s logic of science.

SECTION 2, ROOM E

- 09.00–09.10 **W. B. Jurkat.** An elementary proof of the prime number theorem with remainder term.
- 09.15–09.25 **H. Davenport.** Homogeneous Diophantine equations.
- 09.30–09.40 **P. Turán.** A comparative theory of prime numbers.
- 09.45–09.55 **J. H. H. Chalk.** Small solutions of some congruences.
- 10.00–10.10 **M. Ward.** P-adic linear recurrences.
- 10.15–10.25 **S. Chowla.** Elementary remarks on the zeta function of an algebraic variety.

SECTION 2, ROOM N

- 09.00–09.10 **S. Lipschutz.** On matrices associated with Braids.
- 09.15–09.25 **N. Ito.** Some results on permutation groups of prime degree.
- 09.30–09.40 **O. Tamaschke.** Zur Theorie der Permutationsgruppen mit regulärer Untergruppe.
- 09.45–09.55 **I. Reiner and A. Heller.** Indecomposable integral representations of finite groups.
- 10.00–10.15 **A. A. Kirillov.** Унитарные представления нильпотентных групп Ли. (Unitary representations of nil-potent Lie groups.)

SECTION 2, ROOM O

- 09.00–09.10 **P. C. Gilmore and A. J. Hoffman.** Characterizations of comparability and interval graphs.

- 09.15–09.25 **H. Izbicki.** On edge-colourings of pseudo-regular graphs.
 09.30–09.40 **R. H. Bruck.** On the completion of finite partial planes.
 09.45–09.55 **A. Sade.** Produit direct singulier de quasigroupes orthogonaux.
 10.00–10.10 **I. M. H. Etherington.** Totally symmetric entropic quasi-groups.
 10.15–10.25 **S. Moran.** Unrestricted products.

SECTION 3, ROOM C

- 09.00–09.30 ***L. Ehrenpreis.** Conditionally convergent functional integrals and partial differential equations.
 10.00–10.30 ***G. E. Šilov.** Корректные задачи для линейных уравнений в частных производных с постоянными коэффициентами в вещественном полупространстве. (Correct problems for linear constant coefficient partial differential equations in the real halfspace.)

SECTION 3, ROOM F

- 09.00–09.10 **O. Hustad.** Convex cones with properties related to weak local compactness.
 09.15–09.25 **S. Goldberg and E. O. Thorp.** On some open questions concerning strictly singular operators.
 09.30–09.40 **A. A. Goldstein and E. W. Cheney.** Tchebycheff approximation in locally convex spaces.
 09.45–10.00 **V. K. Ivanov.** Об одной некорректно поставленной задаче. (On an incorrectly stated problem.)
 10.05–10.20 **N. V. Efimov and S. B. Stečkin.** Чебышевские множества в банаховых пространствах. (Čebyšev sets in Banach spaces.)

SECTION 3, ROOM G

- 09.00–09.10 **G. Gorski.** Remark on a certain theorem of H. J. Bremermann.
 09.15–09.25 **E. Gottschling.** Über einen Fundamentalbereich diskontinuierlicher Gruppen.

- 09.30–09.40 **J. McMahon.** Invariant volume element in C^n .
- 09.45–09.55 **J. Ślaskowska.** Bounds for analytic functions of two complex variables.
- 10.00–10.10 **J. M. Mitchell.** Integral theorems for harmonic vectors of three real variables.
- 10.15–10.25 **S. Bergman.** On meromorphic functions of several complex variables.

SECTION 3, ROOM Q

- 09.00–09.10 **F. J. Bureau.** Sur les équations différentielles dont l'intégrale générale est à points critiques fixes.
- 09.15–09.25 **Z. Vorel.** Theory of Kirchoff's networks from the viewpoint of ordinary differential equations.
- 09.30–09.40 **D. Sarafyan.** General existence theorems for ordinary differential equations and their systems.
- 09.45–09.55 **H. A. Antosiewicz.** Maximal growth solutions of linear differential equations.
- 10.00–10.10 **J. B. McLeod.** An infinite set of non-linear differential equations associated with a transport equation.
- 10.15–10.25 **I. A. Barnett and C. W. Mendel.** On a system of non-linear differential equations.

SECTION 4, ROOM H

- 09.00–09.10 **R. Thom.** Equivalence topologique des applications polynomiales.
- 09.15–09.25 **S. S. Cairns.** Retractions by differentiable isotopies.
- 09.30–09.40 **A. Haefliger.** On differentiable links.
- 09.45–10.00 **S. P. Novikov.** Гладкие многообразия общего гомотопического типа. (Smooth manifolds of common homotopy type.)
- 10.05–10.15 **F. Botella.** Généralisation de la variété différentiable et de la connexion infinitésimale.
- 10.20–10.30 **J. Braconnier.** Sur la convolution des courants et ses applications.

SECTION 4, ROOM I

- 09.00–09.10 **J.-P. Pier.** Sur les groupes topologiques compacts totalement discontinus.
- 09.15–09.25 **R. J. Wille.** Rigid topological groups.
- 09.30–09.45 **E. G. Skljarenko.** О топологическом строении локально бикompактных групп и их факторпространств. (On topological construction of locally bicomcompact groups and their quotient spaces.)
- 09.50–10.00 **R. DeMarr.** Generalized homomorphisms in semi-groups and multivalued mappings.
- 10.05–10.15 **L. W. Anderson and R. P. Hunter.** Homomorphisms and dimension.
- 10.20–10.30 **R. P. Hunter and L. W. Anderson.** On the H-equivalence in a semigroup.

SECTION 5, ROOM B

- 09.00–09.30 ***J. Igusa.** Structure theorems of modular varieties.
- 10.00–10.30 ***D. Mumford.** Projective invariants of cycles and their applications.

SECTION 6, ROOM K

- 09.00–09.10 **T. V. Narayana.** A combinatorial lemma and its application to probability and statistics.
- 09.15–09.25 **R. Pyke and C. Hobby.** Combinatorial methods in the theory of sums of random variables.
- 09.30–09.40 **I. Palásti.** Threshold functions for subgraphs of given type of the bichromatic random graph.
- 09.45–09.55 **R. Ch. Bose.** Strongly regular graphs, partial geometries and PBIB designs.
- 10.00–10.10 **H. A. David.** Designs for paired comparisons.
- 10.15–10.30 **L. N. Bol'shev.** Некоторые приложения пирсоновских преобразований. (Some applications of Pearson transformations.)

SECTION 7, ROOM D

- 09.00–09.30 ***H. Grad.** Mathematical problems in magneto-fluid dynamics and plasma physics.

SECTION 7, ROOM L

- 09.00–09.10 **R. S. Varga.** Higher order stable implicit methods for hyperbolic partial diff.eq.s.
- 09.15–09.25 **C. L. Perry and C. M. Ablow.** Numerical solution of the Dirichlet problem for the quasi-linear elliptic equation $\Delta u = buu$.
- 09.30–09.40 **E. L. Wachspress.** Optimum parameters for alternating-direction-implicit iteration.
- 09.45–09.55 **J. Douglas, Jr. and J. E. Gunn.** A general formulation of alternating direction methods.
- 10.00–10.10 **B. Wendroff and P. Lax.** On the stability of difference schemes.

SECTION 8, ROOM R

- 09.00–09.10 **H. F. Fehr.** Instruction in Geometry for the Secondary School.
- 09.15–09.25 **B. Thwaites.** An experiment in new syllabuses.
- 09.30–09.40 **K. O. May.** Undergraduate research in the United States.
- 09.45–09.55 **S. T. Herriot.** Impact of the new school mathematics study group curriculum on college-bound students.
- 10.00–10.10 **R. Perkus.** What mathematics for the twelfth year?
- 10.15–10.25 **L. Faragó.** Difficulties of the analytical operation of thinking in the learning of mathematics.

11.00–12.00 Room A

- ***A. Church.** Logic, arithmetic and automata.

11.00–12.00 Room B

- ***A. Selberg.** Discontinuous groups and harmonic analysis.

14.00–15.00 Room A

- ***H. Grauert.** Die Bedeutung des Levischen Problems für die analytische und algebraische Geometrie.

14.00–15.00 Room B

- ***I. R. Šafarevič.** Поля алгебраических чисел. (Algebraic number fields.)

SECTION 1, ROOM D

- 15.30–16.00 *D. S. Scott. The problem of measure.
 16.30–17.00 *A. Szabó. Terminologiegeschichte und griechische Mathematikgeschichte.

SECTION 2, ROOM I

- 15.30–15.40 L. Solomon. The invariants of finite reflection groups.
 15.45–15.55 R. Lingenberg. Kennzeichnung der ternären orthogonalen Gruppen.
 16.00–16.10 S. Becken. Eine gruppentheoretische Kennzeichnung von orthogonalen Gruppen.
 16.15–16.25 H. Schwerdtfeger. A special class of Frobenius groups.
 16.30–16.40 F. A. Wuytack. General spin operators.
 16.45–16.55 D. L. McQuillan. Some structure theorems for $SL(2, n)$.
 17.00–17.15 D. A. Suprunenko. О периодических матричных группах. (On periodic matrix groups.)

SECTION 2, ROOM N

- 15.30–15.40 E. Grosswald. On a theorem of Petersson and Meinardus.
 15.45–15.55 D. Pumplün. Über die Teilbarkeit der Klassenzahl gewisser imaginärquadratischer Zahlkörper durch Potenzen von 2.
 16.00–16.10 M. Gut. Abschätzungen für die Klassen-Zahlen der quadratischen Körper.
 16.15–16.25 P. Chowla. Relations between classnumbers of real and imaginary quadratic fields.
 16.30–16.40 G. L. Watson. The class-number of a positive quadratic form.
 16.45–16.55 L. J. Mordell. On Lerch's class number formulae for binary quadratic forms.
 17.00–17.10 K. Iwasawa. A class number formula for cyclotomic fields.
 17.15–17.25 H. J. Godwin. Relations between cubic and quartic fields.

SECTION 2, ROOM O

- 15.30–15.40 H. J. Ryser and D. R. Fulkerson. The α -width of a $(0,1)$ -matrix.

- 15.45–15.55 **N. S. Mendelsohn.** Non negative matrices.
- 16.00–16.10 **Y. Lehrer-Ilamed.** On functions of matrices.
- 16.15–16.25 **A. R. Amir-Moéz.** Singular values of sets of linear transformations.
- 16.30–16.40 **M. Fiedler.** On some properties of positive definite matrices.
- 16.45–16.55 **H. Gupta.** An inequality for $P(N_j, k)$.
- 17.00–17.10 **M. S. Cheema.** Vector partitions.
- 17.15–17.25 **F. W. Ponting.** Partitions and condensation formulae for S -functions.

SECTION 3, ROOM C

- 15.30–16.00 ***I. I. Pjateckiĭ-Šapiro.** Обобщенные верхние полуплоскости в теории функций многих комплексных переменных. (Generalized upper half planes in the theory of functions of several complex variables.)
- 16.30–17.00 ***A. N. Kolmogorov.** ε -энтропия классов функций и алгоритмическая сложность ε -аппроксимации индивидуальной функции. (ε -entropy of classes of functions and the algorithmic complexity of ε -approximation of an individual function.)

SECTION 3, ROOM E

- 15.30–15.40 **G. Geymonat.** Sur le problème de Dirichlet.
- 15.45–15.55 **E. Magenes.** Sur les problèmes aux limites linéaires elliptiques.
- 16.00–16.10 **G. Cimmino.** Sur les traces des solutions des équations différentielles linéaires à coefficients constants.
- 16.15–16.25 **C. Pucci.** A variational problem for coefficients of elliptic equations.
- 16.30–16.45 **I. I. Daniljuk.** О задаче с наклонной производной. (On the oblique derivative problem.)
- 16.50–17.00 **H. Röhrl.** Über das Hilbert-Privalov'sche Randwertproblem.
- 17.05–17.15 **D. Mitrović.** Le problème de Hilbert sur les valeurs limites dans un anneau normé.

- 17.20–17.30 **H. Milicer Grużewska.** Les problèmes liés avec les systèmes paraboliques d'équations.

SECTION 3, ROOM F

- 15.30–15.40 **R. Doss.** On the representation of continuous functions of 2 variables by means of addition and continuous functions of 1 variable.
- 15.45–16.00 **A. F. Timan.** О некоторых новых вопросах теории аппроксимации функций действительного переменного. (On some new questions in the theory of approximation of functions of a real variable.)
- 16.05–16.20 **A. F. Leont'ev.** О неполных системах из полиномов Фабера и некоторых других функций. (On incomplete systems of Faber polynomials and some other functions.)
- 16.25–16.40 **M. M. Džrbašjan.** Исследование некоторых неполных систем в комплексной области. (Investigation of some incomplete systems in a complex region.)
- 16.45–16.55 **A. L. Shields and L. Rubel.** On bounded pointwise convergence of polynomials.
- 17.00–17.10 **W. J. Thron.** Sequences of linear fractional transformations and continued fractions.
- 17.15–17.25 **B. Sendov and B. Penkov.** On a metric and its applications to polynomial approximation.

SECTION 3, ROOM G

- 15.30–15.40 **B. Stanković.** L'équation différentielle des opérateurs de J. Mikusiński.
- 15.45–15.55 **M. Farkas.** On differential geometric investigation of ordinary differential equations.
- 16.00–16.10 **S. B. Popov.** Sur les équations différentielles à coefficients polynomiaux.
- 16.15–16.25 **H. L. Crowson.** Closed form solution of a second order linear ordinary differential equation with n regular singular points.
- 16.30–16.40 **A. Mambriani.** Sur l'intégration des équations aux dérivées partielles, linéaires du 2^e ordre.

- 16.45–16.55 **D. Mangeron.** Sur une nouvelle classe de problèmes à la frontière.
- 17.00–17.10 **J. Wloka.** Partielle, lineare Differentialgleichungen für vektorwertige Distributionen.
- 17.15–17.25 **W. Eichhorn.** Zur funktionentheoretischen Behandlung partieller Differentialgleichungen.

SECTION 3, ROOM R

- 15.30–15.40 **M. Haimovici.** Sur la réductibilité des systèmes d'équations aux dérivées partielles.
- 15.45–15.55 **L. Cattabriga.** A uniqueness theorem for parabolic equations.
- 16.00–16.10 **M. Nicolescu.** Criteria for subcaloricity.
- 16.15–16.25 **R. Finn.** Stationary solution of the Navier-Stoker equations.
- 16.30–16.40 **A. Alexiewicz.** Two-norm spaces.
- 16.45–16.55 **N. V. Teodorescu.** Fonctions à dérivée aréolaire généralisée d'ordre $n + 1$ sommable et leur représentation intégrale.
- 17.00–17.10 **D. Kölzow.** Der Satz von Dunford-Pettis und Zerlegungssätze für abstrakte Masse.
- 17.15–17.25 **D. A. Kappos.** Representation of abstract L -spaces.

SECTION 4, ROOM B

- 15.30–16.00 ***A. Dold.** Partitions of unity in the theory of fibrations.
- 16.30–17.00 ***J. F. Adams.** Applications of the Grothendieck-Atiyah-Hirzebruch functor $K(X)$.

SECTION 4, ROOM H

- 15.30–15.40 **P. Scherk.** Osculating spaces.
- 15.45–15.55 **G. Valette.** Les drapeaux et leurs éléments de contact.
- 16.00–16.10 **J. Naas.** Über eine allgemeine Kurventheorie des euklidischen Raumes E_3 .
- 16.15–16.25 **K. Strubecker.** Airysche Spannungsfunktion und isotrope Differentialgeometrie.
- 16.30–16.40 **Z. Nádeník.** Über die Enveloppe von konvexen Zylinderflächen.

- 16.45–16.55 **S. Sarantopoulos.** La forme générale des équations des courbes de Bertrand.
- 17.00–17.10 **S. Bilinski.** Eine Verallgemeinerung der Bertrandschen Kurven.
- 17.15–17.25 **F. Semin.** Lignes de Darboux des helicoides développables.

SECTION 6, ROOM Q

- 15.30–15.40 **M. M. Siddiqui.** Distribution of student's t in samples from a rectangular universe.
- 15.45–15.55 **M. E. Muller.** Sequential (item by item) selection for non-sequential sampling plans.
- 16.00–16.15 **Ju. V. Linnik.** О подобных зонах в математической статистике. (On similar regions in mathematical statistics.)
- 16.20–16.30 **J. L. Hodges, Jr.** Statistical inferences robust against gross errors.
- 16.35–16.45 **M. A. Stephens and G. S. Watson.** Tests for spherical normal and circular normal distributions.
- 16.50–17.00 **Z. W. Birnbaum.** Some simple distribution-free tests of fit.
- 17.05–17.15 **A. Rényi.** On the theory of outstanding observations.
- 17.20–17.30 **I. R. Savage.** Partial orderings of probabilities of rank orders.

SECTION 7, ROOM K

- 15.30–15.40 **O. Tammi.** On analytic foundations of central projection.
- 15.45–15.55 **A. W. Tucker.** A linear-convex existence theorem.
- 16.00–16.10 **F. W. Sinden.** A canonical form for quadratic programs.
- 16.15–16.25 **H. J. A. Duparc.** On equidistant error detecting codes.
- 16.30–16.40 **H. J. Bremermann.** Quantum-theoretical limitations of data processing.
- 16.45–17.00 **V. M. Gluškov.** Проблемы полноты и самоорганизации в абстрактной теории автоматов. (Problems of completeness and self-organization in the abstract theory of automata.)
- 17.05–17.15 **M. Itoh.** The m -valued δ -algebra and its application to the theory of automata.

SECTION 7, ROOM L

- 15.30–15.40 **E. W. Adams.** A class of similar solutions for the velocity and the temperature boundary layer in planar and axially symmetric channel flow.
- 15.45–15.55 **J. Gillis and G. Weiss.** Viscous flow between non-parallel plane walls.
- 16.00–16.10 **M. Holt.** Calculation of nozzle flows by the method of integral relations.
- 16.15–16.25 **A. N. Ergun.** Self-superposable fluid motions.
- 16.30–16.40 **A. F. Pillow.** Forced convection of a viscous fluid at low Reynolds number past a circulation producing dipole in two-dimensions.
- 16.45–16.55 **S. C. R. Dennis.** On the slow motion of a viscous fluid past cylindrical bodies.
- 17.00–17.10 **K. B. Ranger.** Two dimensional viscous flow interior to a circular cylinder.

SECTION 7, ROOM P

- 15.30–15.40 **J. A. Ward.** On determining a differential equation from data.
- 15.45–15.55 **C. W. Clenshaw.** The application of a curve fitting program to the ship-fairing problem.
- 16.00–16.10 **J. G. Hayes.** A curve-fitting problem with six independent variables.
- 16.15–16.25 **J. E. L. Peck.** Polynomial approximation of observational data subject to constraint.
- 16.30–16.40 **C. Orloff.** La résolution des équations différentielles au moyen des spectres mathématiques.
- 16.45–16.55 **D. Sarafyan.** A unified and general method of numerical solution of ordinary differential equations.
- 17.00–17.10 **J. G. L. Michel.** Numerical integration of ordinary differential equations through certain types of singularities.

TUESDAY, 21ST AUGUST

SECTION 1, ROOM P

- 09.00–09.10 **A. Salomaa.** A completeness criterion for sets of many-valued truth-functions.
- 09.15–09.25 **A. R. Turquette.** Independent axioms for infinite-valued logic.
- 09.30–09.40 **J. R. Shoenfield.** A separation theorem in the predicate calculus.
- 09.45–09.55 **J. Porte.** An associativity lemma.
- 10.00–10.10 **W. A. Hijab.** A logical characterization of rigid language games.

SECTION 2, ROOM N

- 09.00–09.10 **B. Gordon.** Some Ramanujan-like continued fractions.
- 09.15–09.25 **A. M. Schinzel.** On the arithmetic of polynomials and some related problems.
- 09.30–09.40 **I. Niven.** On the covering of lattice points in 3-space.
- 09.45–09.55 **O. Herrmann.** Über die Verteilung von Gitterpunkten im hyperbolischen Raum.
- 10.00–10.10 **J. Sedláček.** Rationale Punkte im E_2 und E_3 .
- 10.15–10.25 **S. M. Hussain.** Evaluation of a more general form of determinant of 11th order.

SECTION 2, ROOM O

- 09.00–09.10 **A. S. Fraenkel.** A class of transcendental numbers.
- 09.15–09.25 **J. Popken.** Algebraic dependence of arithmetic functions.
- 09.30–09.40 **E. G. Straus.** A remark on the p -adic Roth theorem.
- 09.45–09.55 **V. Brun.** Euclidean algorithms and musical theory.
- 10.00–10.10 **E. Frank.** Continued fraction expansions for binomial quadratic surds.
- 10.15–10.25 **C.-O. Selenius.** Eine endgültige kettenbruchtheoretische Erklärung der alten indischen zyklischen Methode zur Lösung der Bhaskara-Gleichung $x^2 - Dy^2 = 1$ (Pellsche Gleichung).

SECTION 2, ROOM Q

- 09.00–09.10 **I. Halperin.** Elementary divisors in von Neumann rings.
 09.15–09.25 **A. Sklar.** The algebra of operators.
 09.30–09.40 **N. L. Alling.** Valuation theory applied to function rings.
 09.45–09.55 **W. Peremans.** Domain and range homomorphisms.
 10.00–10.10 **J. Querré.** r -systèmes d'idéaux d'un demi-groupe.
 10.15–10.25 **H. Kleisli and J.-M. Maranda.** Satellites relative to injective structures.

SECTION 3, ROOM D

- 09.00–09.30 ***G. Stampacchia.** Second order elliptic equations and boundary problems.
 10.00–10.30 ***A. Pliš.** Unique continuation theorems for solutions of partial differential equations.

SECTION 3, ROOM E

- 09.00–09.10 **P. D. Barry.** The minimum modulus of integral functions.
 09.15–09.25 **W. H. J. Fuchs.** On a conjecture of G. Polya concerning gap series.
 09.30–09.40 **R. Dolinsky.** Nullstellen der Abschnitte nirgends konvergenter Potenzreihen.
 09.45–09.55 **A. Marden.** The critical points of a linear combination of Green's function.
 10.00–10.10 **L. Sario.** Analytic mappings into Riemann surfaces.
 10.15–10.30 **L. I. Volkovyskii.** Вопросы аппроксимирования и алгебраическая теория для некоторых классов функций на римановых поверхностях. (Questions of approximation and algebraic theory for some classes of functions on Riemann surfaces.)

SECTION 3, ROOM F

- 09.00–09.10 **J. L. B. Cooper.** Fourier transforms of L^p functions and sequences.
 09.15–09.25 **N. D. Kazarinoff and R. F. Goodrich.** A derivation of the Watson transformation.

- 09.30–09.40 **Ch. Fox.** Generalized integral transforms.
 09.45–09.55 **E. Jabotinsky.** Two-variable integral transforms.
 10.00–10.10 **B. Schweizer.** An inequality for the confluent hypergeometric function.
 10.15–10.25 **R.-F. Gloden.** Propriétés des polynômes associés aux fonctions de Laguerre de 2e espèce généralisées et questions connexes.

SECTION 3, ROOM G

- 09.00–09.10 **F. Huckemann.** Extremalprobleme für schlichte konforme Abbildung eines Kreisringes.
 09.15–09.25 **J. Krzyż.** The radius of close-to-convexity for univalent functions.
 09.30–09.40 **M. O. Reade.** On sections of certain Laurent series.
 09.45–09.55 **M. S. Robertson.** Extremal problems for analytic functions with positive real part.
 10.00–10.10 **C. Uluçay.** On Bieberbach's conjecture (Part I).
 10.15–10.25 **K. Szilárd.** Die Analoga der ganzen rationalen Funktionen in verallgemeinerten Funktionenklassen.

SECTION 4, ROOM B

- 09.00–09.30 ***M. Kervaire.** Differentiable structures on spheres and homotopy.
 10.00–10.30 ***S. Smale.** Aspects of dynamical systems.

SECTION 4, ROOM H

- 09.00–09.10 **E. A. Michael.** Trivial extensions.
 09.15–09.25 **R. McDowell and J. de Groot.** Autohomeomorphism groups of 0-dimensional spaces.
 09.30–09.45 **A. Arhangel'skiĭ.** О размерности пространств. (On the dimension of spaces.)
 09.50–10.05 **B. N. Pasynkov.** Об универсальных пространствах. (On universal spaces.)
 10.10–10.25 **A. P. Norden.** Биаксиальная геометрия и ее обобщения. (Biaxial geometry and its generalization.)

SECTION 5, ROOM I

- 09.00–09.10 **J.-J. Etayo.** The concept of algebraic equivalence of divisors of a field.
- 09.15–09.25 **P. Abellanas.** Homology theory on an algebraic variety.
- 09.30–09.40 **I. R. Porteous.** Thom polynomials in algebraic geometry.
- 09.45–09.55 **J. H. de Boer.** On Serre's intersection formula.
- 10.00–10.10 **M. J. Greenberg.** Realizations of schemata over local rings.
- 10.15–10.25 **H. Grell and L. Budach.** Erweiterungstheorie von eindimensionalen Noetherschen Präskemata.

SECTION 6, ROOM C

- 09.00–09.30 ***G. A. Hunt.** Transformation of Markoff processes.
- 10.00–10.30 ***Ja. G. Sinai.** Применение некоторых вероятностных идей к эргодической теории и к классическим динамическим системам. (Application of some probabilistic ideas to ergodic theory and to classical dynamical systems.)

SECTION 7, ROOM K

- 09.00–09.10 **N. Wiener.** Random functions and statistical mechanics.
- 09.15–09.30 **M. M. Lavrent'ev.** Об операторных уравнениях I-го типа и некоторых задачах теории потенциала. (On operator equations of the first kind and certain problems of potential theory.)
- 09.35–09.50 **M. A. Lavrent'ev.** Некоторые краевые задачи теории потенциала. (Some boundary problems in potential theory.)
- 09.55–10.05 **R. T. Ackroyd.** Application of functional analysis to the high speed numerical solution, with error bounds, of the Boltzmann equation for neutron transport.
- 10.10–10.20 **E. H. Bareiss.** On the spectral analysis of the periodic transport operator.
- 10.25–10.35 **R. P. Cesco.** On the general solution of the problem of three bodies.

SECTION 7, ROOM L

- 09.00–09.10 **C. S. Morawetz.** Approach to steady state for the wave equation.

- 09.15–09.25 **K. Bochenek.** Some applications of asymptotic expansions theorems.
- 09.30–09.40 **C. B. Haselgrove.** Non-linear ordinary differential equations with two-point boundary conditions.
- 09.45–09.55 **T. Frey.** Abschätzung- und Entwicklungsmethoden der Eigenwertaufgaben von Differentialgleichungssystemen.
- 10.00–10.10 **M. Zlámal.** Error estimates for positive definite boundary-value problems.
- 10.15–10.25 **G. H. Handelman and J. B. Keller.** A singular perturbation method for eigenvalue problems.

SECTION 8, ROOM R

- 09.00–09.10 **L. N. H. Bunt.** Statistics in schools; basic notions for testing a hypothesis.
- 09.15–09.25 **P. Suppes.** The learning of mathematical concepts.
- 09.30–09.40 **F. S. Acton.** The growing importance of mathematical models in medical research.
- 09.45–09.55 **M. Maschler.** Mathematics curriculum for humanistic studies.

11.00–12.00 ROOM A

- *P. Henrici.** Problems of stability and error propagation in the numerical integration of ordinary differential equations.

11.00–12.00 ROOM B

- *J.-P. Serre.** Géométrie algébrique.

14.00–15.00 ROOM A

- *B. Eckmann.** Homotopy and cohomology theory.

14.00–15.00 ROOM B

- *J.-P. Kahane.** Transformées de Fourier des fonctions sommables.

SECTION 2, ROOM C

- 15.30–16.00 ***J. W. S. Cassels.** Arithmetic on elliptic curves.
- 16.30–17.00 ***A. I. Kostrikin.** Алгебры Ли и конечные группы. (Lie algebras and finite groups.)

SECTION 2, ROOM N

- 15.30–15.40 **T. A. Springer.** Twisted composition algebras.
- 15.45–15.55 **H. Kupisch.** Symmetrische Algebren mit endlich vielen unzerlegbaren Darstellungen.
- 16.00–16.10 **L. C. A. van Leeuwen.** Contribution to non-commutative ideal theory.
- 16.15–16.25 **C. J. Penning.** Rings with prescribed idempotents and tensor products.
- 16.30–16.40 **F. A. Bostock.** A generalisation of the Divinsky radical.
- 16.45–17.00 **V. A. Andrunakievič.** Радикалы и разложение кольца. (Radicals and the decomposition of a ring.)
- 17.05–17.15 **J. W. Andrushkiw.** A characterization of rings orderable in a non-Archimedean way.
- 17.20–17.30 **J. Szendrei.** Über die Quasi-Ideale von Ringen.

SECTION 2, ROOM O

- 15.30–15.40 **H.-J. Kanold.** Über periodische zahlentheoretische Funktionen.
- 15.45–15.55 **H. Delange.** Sur une classe de fonctions arithmétiques.
- 16.00–16.10 **E. T. Frankel.** A chessboard analog to Moessner's theorem on powers of integers.
- 16.15–16.25 **M. B. Wells.** Bit parity of multiples of primes.
- 16.30–16.40 **R. M. Robinson.** Intervals containing infinitely many sets of conjugate algebraic units.
- 16.45–16.55 **W. E. Briggs.** Prime-like sequences generated by a sieve process.
- 17.00–17.10 **J. H. B. Kemperman.** Generalized distributions modulo 1.
- 17.15–17.25 **L. M. Chawla.** The perfect square congruence over integers.

SECTION 3, ROOM B

- 15.30–16.00 ***G. Choquet.** Les cônes convexes faiblement complets dans l'analyse.
- 16.30–17.00 ***B. Sz.-Nagy.** The "outer functions" and their role in functional calculus.

SECTION 3, ROOM F

- 15.30–15.40 **W. Eberhard.** Über die Greensche Funktion der linearen Eigenwertaufgabe 4. Ordnung.
- 15.45–15.55 **E. Hille.** Linear fourth order differential equations.
- 16.00–16.10 **W. N. Everitt.** The circle method of Weyl applied to differential equations of arbitrary order.
- 16.15–16.25 **B. W. Roos and W. C. Sangren.** Expansions associated with a pair of singular first-order differential equations.
- 16.30–16.40 **L. Lorch and P. Szego.** Higher monotonicity properties of certain Sturm-Liouville functions.
- 16.45–16.55 **H. Günzler.** Generalized Fourier-series.
- 17.00–17.15 **V. A. Marčenko.** Обобщенная спектральная функция. (The generalized spectral function.)
- 17.20–17.35 **V. A. Jacobovič.** Абсолютная устойчивость и ограниченность решений нелинейных дифференциальных уравнений автоматического регулирования в критических случаях и некоторые новые задачи матричной алгебры. (Absolute stability and boundedness of solutions of non-linear differential equations of automatic control in critical cases and some new problems in matrix algebra.)

SECTION 3, ROOM G

- 15.30–15.40 **W. Damköhler.** Über die Lösbarkeit isoperimetrischer Variationsprobleme.
- 15.45–15.55 **H. Halkin.** On the calculus of variations with unilateral constraints.
- 16.00–16.10 **L. C. Young.** On the calculus of variations for parametric multiple integrals.
- 16.15–16.25 **S. Hildebrandt.** Über die Morrey-Calkinschen Räume.
- 16.30–16.40 **J. Elliott.** An application of the theory of Dirichlet spaces.
- 16.45–17.00 **S. M. Nikol'skiĭ.** О граничных свойствах дифференцируемых функций многих переменных. (On boundary properties of differentiable functions of several variables.)
- 17.05–17.20 **L. D. Kudrjavcev.** Весовые пространства. (Weighted spaces.)

SECTION 3, ROOM M

- 15.30–15.40 **N. Kuhlmann.** Über die Auflösung der Singularitäten 3-dimensionaler komplexer Räume.
- 15.45–15.55 **A. Korányi and L. Pukánszky.** Holomorphic functions with positive real part on polycylinders.
- 16.00–16.10 **J. J. Kohn.** Harmonic integrals on non-compact complex manifolds.
- 16.15–16.25 **A. Martineau.** Croissance d'une fonction entière du type exponentiel et supports des fonctionnelles analytiques.
- 16.30–16.40 **F. Norguet.** Applications de la théorie des résidus.
- 16.45–16.55 **V. Avannissian.** Fonctions entières de plusieurs variables à croissance très lente.
- 17.00–17.10 **S. K. Bose.** Integral functions of several variables.
- 17.15–17.30 **I. I. Ibragimov.** Некоторые экстремальные задачи для линейных операторов в классе целых функций конечной степени. (Some extremal problems for linear operators in the class of entire functions of finite order.)

SECTION 4, ROOM E

- 15.30–15.45 **A. V. Pogorelov.** Об изометрическом погружении двумерного риманова многообразия в трехмерное риманово пространство. (On the isometric immersion of a two-dimensional Riemannian manifold into a three-dimensional Riemannian space.)
- 15.50–16.05 **N. V. Efimov.** Поверхности с отрицательной Гауссовой кривизной. (Surfaces of negative Gaussian curvature.)
- 16.10–16.20 **P. T. Church.** Differentiable open maps on n -manifolds.
- 16.25–16.35 **M. Prvanovitch.** Transformations conformes d'une classe des espaces riemanniens compacts.
- 16.40–16.50 **R. Blum.** On conformally euclidean spaces of class one.
- 16.55–17.05 **P. Vincensini.** Surfaces harmoniques et représentation conforme.
- 17.10–17.20 **J. C. C. Nitsche.** The extension of minimal surfaces intersected in star-shaped curves by parallel planes.

SECTION 4, ROOM H

- 15.30–15.40 **A. Kosinski.** On the structure of combinatorial manifolds.
 15.45–15.55 **J. V. Whittaker.** Group isomorphisms of some homeomorphism groups.
 16.00–16.10 **G. Piranian.** The boundary elements of manifolds.
 16.15–16.25 **P. Papić.** Sur les images continues des compacts ordonnés.
 16.30–16.40 **E. Hemmingsen.** Branch sets of light interior mappings.
 16.45–16.55 **R. D. Anderson.** Covering flows.
 17.00–17.10 **J. E. Keisler.** Inverse incidence limits.
 17.15–17.25 **S. Mardešić.** ε -mappings onto polyhedra.

SECTION 4, ROOM I

- 15.30–15.40 **A. W. Adler.** Classifying spaces for Kähler manifolds.
 15.45–15.55 **R. Couty.** Transformations projectives des variétés presque kähleriennes.
 16.00–16.10 **G. B. Rizza.** Finsler structures on almost complex manifolds.
 16.15–16.25 **K. Yano.** On a structure f satisfying $f^3 + f = 0$.
 16.30–16.40 **Y.-C. Wong.** Existence of linear connections with respect to which a given tensor is parallel or recurrent.
 16.45–16.55 **P. Libermann.** Connexions d'ordre supérieur.
 17.00–17.10 **G. Vranceanu.** Sur les espaces fermés à connexion affine.
 17.15–17.25 **T. P. Angelitch.** Eine Verellgemeinerung des Begriffs des Darboux'schen Vektors für den Raum von Riemann.

SECTION 5, ROOM P

- 15.30–15.40 **M. Herrmann.** Eine Multiplizitätsbestimmung mit Hilfe d. Theorie d. Nachbarpunkte.
 15.45–15.55 **V. Niče.** Ein Beitrag der Geometrie der Strahlenkomplexe.
 16.00–16.10 **A. L. Mayer.** A theorem of Riemann.
 16.15–16.25 **A. D. Keedwell.** A configurational proposition in the projective plane.
 16.30–16.40 **D. W. Crowe.** "Distance" in a plane over $GF(2^n)$.
 16.45–16.55 **D. Pedoe.** A fundamental theorem in projective geometry.

SECTION 6, ROOM K

- 15.30–15.40 **H. Robbins and Y. S. Chow.** A renewal theorem for non-identically distributed random variables.
- 15.45–16.00 **B. V. Gnedenko.** О некоторых экстремальных задачах теории очередей. (On some extremal problems in queuing theory.)
- 16.05–16.15 **L. Takács.** Combinatorial methods in the theory of queues.
- 16.20–16.30 **K.-W. Gaede.** Anwendung einer stochastischen Anordnung bei Wartezeitproblemen.
- 16.35–16.50 **L. S. Pontrjagin.** Одна статистическая задача теории оптимального управления. (A statistical problem in the theory of optimal control.)
- 16.55–17.05 **M. Sobel.** On statistical search problems.
- 17.10–17.20 **J. M. Danskin.** A game over spaces of probability distributions.
- 17.25–17.35 **M. Maschler.** Immune coalition-structures for n -person cooperative games.

SECTION 6, ROOM L

- 15.30–15.40 **E. Lukacs.** A linear mapping of the space of distribution functions onto a set of bounded continuous functions.
- 15.45–15.55 **R. G. Laha.** On an analytical decomposition of the Poisson law.
- 16.00–16.15 **S. H. Siraždinov.** О сходимости по вариации для распределения сумм независимых слагаемых. (On strong convergence of the distributions of sums of independent terms.)
- 16.20–16.30 **H. Rubin.** Convergence in probability and convergence with probability one of nets.
- 16.35–16.45 **W. Hoeffding.** The strong law of large numbers for U statistics.
- 16.50–17.00 **P. B. T. Braumann.** Bemerkenswerte Sonderfälle der schwachen Konvergenz von Summen unabhängiger Zufallsgrößen.
- 17.05–17.15 **P. B. T. Braumann.** Eigenschaften der Normierungskonstanten von Gnedenko und Groshev.

17.20–17.30 **P. B. T. Braumann.** The multiplication of a finite number of not necessarily σ -finite measures.

SECTION 7, ROOM Q

15.30–15.40 **J. H. Wilkinson.** Error bounds for unitary equivalence and similarity transformations.

15.45–15.55 **L. Derwidué.** Calcul sur CAB 500 des valeurs et vecteurs propres d'une matrice.

16.00–16.10 **K. Nakashima.** On the computation of eigenvalues of general matrices.

16.15–16.25 **V. Lovass-Nagy.** Matrix methods for approximate treatment of heat conduction problems.

16.30–16.40 **R. W. Hockney.** An approximate solution of Laplace's equation for a round peg in a square hole.

16.45–16.55 **J. G. Herriot.** Calculation of particular solutions of linear partial differential equations by the method of integral operators.

17.00–17.10 **E. V. Laitone.** Spherical surface harmonic analysis of numerical data.

17.15–17.25 **S. Schechter.** Numerical solution of discrete variational problems.

SECTION 7, ROOM R

15.30–15.40 **A. Melis.** L'autoconfinement d'une colonne de plasma en régime adiabatique.

15.45–15.55 **I. Ferrari.** Sur un théorème d'unicité pour les équations magnétodynamiques des fluides.

16.00–16.10 **J. B. Helliwell.** Gas-ionising shock and detonation waves in magnetogasdynamics.

16.15–16.25 **D. E. Williams.** A solution of the aerofoil integral equation by the Hilbert-Schmidt method and some related topics.

16.30–16.40 **H. P. Greenspan.** The stability of a contracting shear layer.

16.45–16.55 **C. K. Thornhill.** The analogy between intense explosions and bodies in flight at very high speeds.

17.00–17.10 **J. J. Moreau.** Sur la naissance de la cavitation dans un fluide incompressible.

17.15–17.25 **J. Bonder.** Sur la structure tensorielle du système différentiel de la dynamique des gaz réels.

WEDNESDAY, 22ND AUGUST

SECTION 1, ROOM P

- 09.00–09.10 **J. G. Dijkman.** Intuitionism and probability theory.
- 09.15–09.25 **D. van Dalen.** Some problems in intuitionistic affine geometry.
- 09.30–09.40 **E. Harzheim.** Some theorems on lexicographically ordered sets.
- 09.45–09.55 **A. Lévy.** The interdependence of some consequences of the axiom of choice.
- 10.00–10.10 **K. Bing.** A generalization of Vaughan's theorem on ordered sets.
- 10.15–10.25 **T. Viola.** Un théorème sur les treillis.
- 10.30–10.40 **R. J. Diamond.** Each and all.
- 10.45–10.55 **G. C. Moisil.** La logique à trois valeurs et ses applications.
- 11.00–11.10 **K. W. Schröter.** Über die Church'sche Hypothese betreffend den Begriff der Entscheidbarkeit.
- 11.15–11.25 **K. L. de Bouvère.** On formal ambiguity.

SECTION 2, ROOM I

- 09.00–09.10 **Š. Schwarz.** Measures on compact semigroups.
- 09.15–09.25 **V. S. Krishnan.** Ordered semigroups.
- 09.30–09.40 **G. B. Preston.** The lattice of congruences on a completely O-simple semigroup.
- 09.45–09.55 **J. Łoś.** On homomorphisms of commutative semigroups.
- 10.00–10.10 **J. M. Howie.** Free products of semigroups with amalgamation.
- 10.15–10.30 **S. I. Adjan.** Правило сокращения в конечноопределенных полугруппах. (The cancellation law in finitely defined semigroups.)
- 10.35–10.50 **A. I. Širšov.** О некоторых алгоритмических вопросах в теории колец. (Quelques questions algorithmiques de la théorie des anneaux.)

SECTION 2, ROOM N

- 09.00–09.10 **A. Baur.** Rationale Punkte auf Kurven dritter Ordnung.
- 09.15–09.25 **J. H. J. Almering.** On a system of diophantic equations connected with a geometric problem.

- 09.30–09.40 **A. A. Muwafi.** A quadratic diophantine equation.
 09.45–09.55 **L. Bernstein.** Zur Lösung der diophantischen Gleichung

$$1 = \frac{1}{x_1} + \frac{1}{x_2} + \dots + \frac{1}{x_k}$$

- 10.00–10.10 **M. David.** Résolution de $x^2 + y^2 = z^2 + m$ par réduction matricielle.
 10.15–10.25 **Sir A. Oppenheim.** The rational integral solution of the equation $x^3 + y^3 = u^3 + v^3$ and allied diophantine equations.
 10.30–10.40 **E. C. Posner and H. C. Rumsey.** Polynomials which divide infinitely many trinomials.
 10.45–10.55 **I. Seres.** Irreducibility of any polynomial.

SECTION 2, ROOM O

- 09.00–09.10 **F.-P. Gagnon.** Demi-corps et corpoides.
 09.15–09.25 **A. Almeida Costa.** Sur les p -demi-anneaux.
 09.30–09.40 **A. Zavrotsky.** Plurality in the fields.
 09.45–09.55 **E.-A. Behrens.** Die Halbgruppe der Ideale einer Algebra mit distributivem Idealverband.
 10.00–10.10 **H. Gonshor.** Polyploidy algebras with multiple alleles.
 10.15–10.25 **W. Kuyk.** Fixed fields under automorphism groups of purely transcendental field extensions.
 10.30–10.40 **G. Kantz.** Zerlegung unendlicher Primstellen in relativ Galoisschen Körpern.
 10.45–10.55 **M. Krasner.** Nombre des extensions de degré donné d'un corps p -adique.

SECTION 3, ROOM C

- 09.00–09.30 ***W. L. Baily.** On the moduli of Abelian varieties.
 10.00–10.30 ***P. J. Cohen.** Idempotent measures and homomorphisms of group algebras.
 11.00–11.30 ***E. M. Stein.** Conjugate harmonic functions in several variables.

SECTION 3, ROOM E

- 09.00–09.10 **S. Hartman.** Some problems in the algebra of Borel measures.

- 09.15–09.25 **W. Żelazko.** Some remarks on the locally bounded algebras.
- 09.30–09.45 **L. A. Skornjakov.** Локально бикомпактные бирегулярные кольца. (Locally bicomcompact biregular rings.)
- 09.50–10.00 **H. Neunzert.** Über die Fortsetzung von Kontraktionen eines m -dimensionalen komplexen Vektorraumes.
- 10.05–10.15 **F. W. Gehring.** Extremal length definitions for the conformal capacity of space rings.
- 10.20–10.30 **M. Lavrentiev.** Sur les représentations quasi-conformes.
- 10.35–10.45 **E. Reich.** On a characterization of quasi-conformal mappings.
- 10.50–11.05 **G. D. Suvorov.** Топологические отображения плоских областей с переменными границами. (Topological mappings of plane regions with variable boundaries.)
- 11.10–11.20 **M. E. Noble.** Some gap theorems for Dirichlet series.
- 11.25–11.40 **A. A. Talaljan.** О представлении измеримых функций тригонометрическими рядами. (Representations of measurable functions by trigonometrical series.)

SECTION 3, ROOM F

- 09.00–09.10 **R. Faure.** Sur certaines solutions périodiques d'équations différentielles nonlinéaires.
- 09.15–09.25 **L. Cesari.** Periodic solutions of nonlinear partial differential equations.
- 09.30–09.40 **A. Denjoy.** Les équations différentielles périodiques.
- 09.45–09.55 **J. Prouse.** Analysis of some classical problems of propagation.
- 10.00–10.10 **P. Jeanquartier.** Solutions élémentaires d'opérateurs différentiels paraboliques hyperboliques.
- 10.15–10.30 **V. A. Kondrat'ev.** О дифференцируемости решения эллиптического уравнения вплоть до границы. (On the differentiability of the solution of an elliptic equation up to the boundary.)
- 10.35–10.50 **Ju. A. Mitropol'skiĭ.** Метод интегральных многообразий в теории нелинейных дифференциальных уравнений. (The method of integral manifolds in the theory of nonlinear differential equations.)

- 10.55–11.10 **R. A. Aleksandrjan.** О некоторых системах типа С. Л. Соболева и об однородных краевых задачах для дифференциальных операторов с индефинитной квадратичной формой. (On some systems of S. L. Sobolev's type and on homogeneous boundary problems for differential operators with indefinite quadratic form.)
- 11.15–11.30 **L. V. Ovsjannikov.** Применение теории групп Ли к некоторым уравнениям с частными производными. (Application of the theory of Lie groups to some partial differential equations.)

SECTION 3, ROOM G

- 09.00–09.10 **LeRoy A. MacColl.** Quotients of sums of exponentials of polynomials.
- 09.15–09.25 **L. Berg.** Asymptotische Entwicklungen für Parameterintegrale.
- 09.30–09.40 **A. Magnus.** A new type of continued fraction.
- 09.45–09.55 **F. W. J. Olver.** Bounds for remainder terms in asymptotic expansions.
- 10.00–10.10 **K. S. Kolden.** The summation formula of Euler MacLaurin and its generalization.
- 10.15–10.25 **J. Bognár.** On the existence of square-roots of J -selfadjoint operators.
- 10.30–10.40 **R. A. Hirschfeld.** Self-conjugate operators in Hermite space.
- 10.45–10.55 **P. L. Duren.** Invariant subspaces of tridiagonal operators.
- 11.00–11.10 **S. Helgason.** Some results in invariant theory.

SECTION 4, ROOM B

- 09.00–09.30 ***M. Berger.** Les variétés riemanniennes dont la courbure satisfait à certaines conditions.
- 10.00–10.30 ***V. Poénaru.** On the cartesian product of a differentiable manifold by a disk.

SECTION 4, ROOM H

- 09.00–09.10 **B. L. Reinhart.** Periodic orbits of vector fields.
- 09.15–09.25 **W. Barthel.** Zur nichtlinearen Differentialgeometrie.

- 09.30–09.40 **K. Leichtweiss.** About curvature theory of manifolds in the Euclidean n -space.
- 09.45–09.55 **S. I. Goldberg.** The conformal transformation group of a Riemannian manifold.
- 10.00–10.10 **W. Wrona.** On a generalization of Schur theorem.
- 10.15–10.25 **H. A. Eliopoulos.** Connections of manifolds with almost tangent structure.
- 10.30–10.40 **A. Kawaguchi.** On invariants of higher order spaces.
- 10.45–10.55 **Y. Katsurada.** Some properties for closed hypersurfaces in Riemann space.
- 11.00–11.10 **R. Behari.** Some properties of subspaces of a Riemannian space.
- 11.15–11.30 **L. V. Sabinin.** Зеркальные симметрии однородных пространств и групп Ли. (Mirror symmetries of homogeneous spaces and Lie groups.)

SECTION 5, ROOM B

- 11.00–11.30 ***H. Hironaka.** Resolution of singularities of an algebraic variety of characteristic 0.

SECTION 6, ROOM Q

- 09.00–09.10 **K. L. Chung.** Some general concepts of stochastic processes.
- 09.15–09.25 **J. Kampé de Fériet.** Sur la décomposition d'une fonction aléatoire normale.
- 09.30–09.40 **M. S. Bartlett.** Statistical estimation of density functions.
- 09.45–10.00 **Ju. A. Rozanov.** К вопросу об эквивалентности вероятностных мер, отвечающих гауссовским стационарным процессам. (On the question of equivalence of probabilistic measures corresponding to Gaussian stationary processes.)
- 10.05–10.20 **Ju. A. Rozanov.** Об эффективности метода наилучших квадратов для зависимых величин. (On the effectiveness of the least squares method for dependent variables.)
- 10.25–10.40 **I. A. Ibragimov.** Об условиях слабой зависимости стационарных гауссовских процессов. (On conditions for weak dependence for stationary Gaussian processes.)

- 10.45–10.55 **S. K. Zaremba.** Estimators of the cumulants of the variables generating a linear process.
- 11.00–11.10 **P. R. Rider.** Incomplete moments of the binomial distribution.
- 11.15–11.25 **R. K. Brayton.** On the asymptotic behavior of the number of trials necessary to complete a set with random selection.

SECTION 7, ROOM K

- 09.00–09.10 **H.-W. Alten.** Schranken für die Nullstellen der Gegenbauerschen Polynome.
- 09.15–09.25 **W. Börsch-Supan.** A-posteriori error bounds for polynomial roots.
- 09.30–09.40 **V. Doležal.** Regularity of Kirchhoff's networks.
- 09.45–09.55 **F. M. Reza.** Generating theorems for positive real functions.
- 10.00–10.10 **A. D. Wasel.** On a variational theorem.
- 10.15–10.25 **H. Goldenberg.** Relationship between finite slab and two-dimensional boundary value problems.
- 10.30–10.40 **N. L. Ghosh.** Circulation lift and drag on aerofoils.
- 10.45–10.55 **A. M. J. Davis.** Completeness of 2-*D* eigenoscillations of water in a semicircular bowl.
- 11.00–11.10 **P. Werner.** An interface problem in the theory of acoustic wave fields.

SECTION 7, ROOM L

- 09.00–09.10 **D. G. Magiros.** An actual solution of a problem of nonlinear mechanics.
- 09.15–09.25 **M. Pastori.** Sul significato meccanico di alcune forme differenziali relative a un sistema olonomo.
- 09.30–09.40 **S. Sherman.** The Ising model for ferromagnetism.
- 09.45–09.55 **T. Ważewski.** Équations au contingent et systèmes de commande.
- 10.00–10.10 **D. Gaier.** Über die Diskretisierung der Gerschgorinschen Integralgleichung.
- 10.15–10.25 **P. W. Kasteleyn.** Arrangements of dimers on lattice graphs.
- 10.30–10.40 **L. Bonfiglioli.** Nomographie anaglyphique.
- 10.45–10.55 **J. C. Cooke.** Triple integral equations.

SECTION 7, ROOM M

- 09.15–09.25 **Z. Janković.** Some remarks on the tensor calculus.
09.30–09.40 **E. Egesoy.** On the extension of the Savary construction to spherical surfaces and line space.
09.45–09.55 **E. N. Gilbert.** Models of polycrystalline solids.
10.00–10.10 **T. Chorbajian.** Diffusion of moisture in seeds.
10.15–10.25 **A. A. Gnanadoss.** Fechner quantum and equal temperament.

SECTION 8, ROOM R

- 09.00–09.10 **E. M. R. Smith.** The challenge and opportunities of mathematics teaching in Africa.
09.15–09.25 **W. W. Sawyer.** Not modern; not traditional; but mathematics as a whole.
09.30–09.40 **M. E. Shanks.** The role of rigor in school mathematics.
09.45–09.55 **K. Wigand.** Modernisierung des Mathematikunterrichts durch mathematische Geräte und praktische Verfahren.
10.00–10.10 **M. Bridger.** The use of desk calculating machines in schools.
10.15–10.25 **C. Orloff.** Concrétisation des notions algébriques dans l'enseignement secondaire.
10.30–10.40 **R. T. Hood.** Inverting the conics.
10.45–10.55 **W. Ness.** Über die harmonische Reihe.

14.00

CLOSING SESSION

Concert Hall

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TIMETABLE OF

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1. Logic, Foundations and History 2. Algebra and Theory of Numbers 3. Analysis 4. Topology and Differential Geometry

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	F	9.00- 9.30 10.00-10.30 9.00-10.30	(P)	(E, N, O)	Malliavin (D) Jenkins (D) (F, G, Q, R)	Smirnov (C) Abiyah (C) (H)
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SCIENTIFIC PROGRAMME

(parenthesis refer to the rooms.)

5. Algebraic
Geometry

6. Probability
and Statistics

7. Applied Mathematics,
Mathematical Physics
and Numerical Analysis

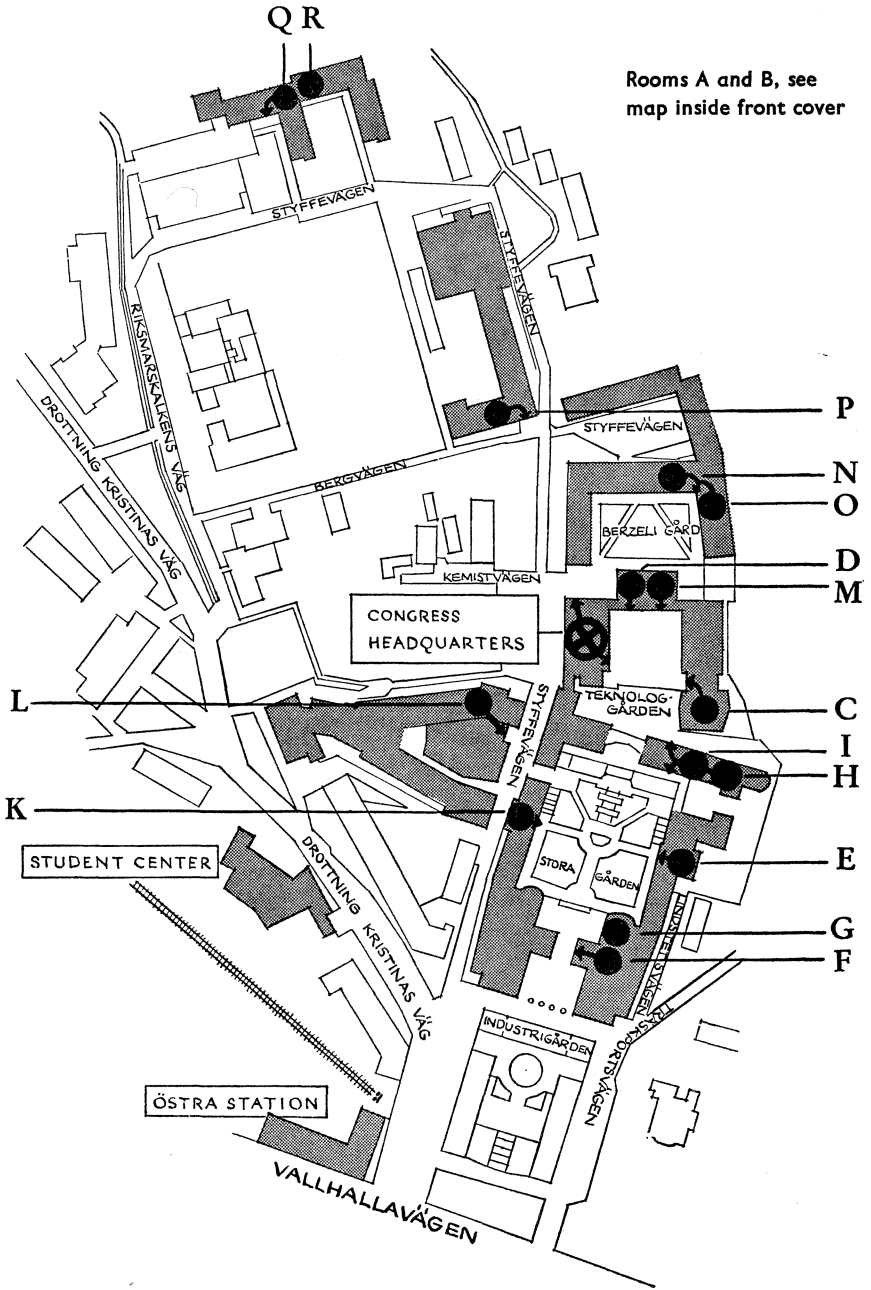
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