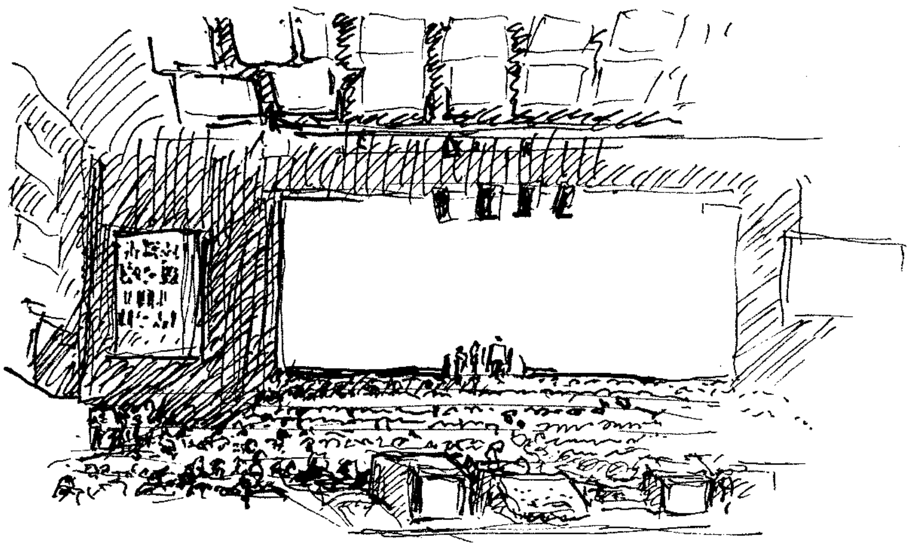
Daily News

International Congress of Mathematicians
Thursday, August 20, 1998 – No. 2

Talk by a Fields Medalist

Today at 16:15 W. T. Gowers will deliver his lecture entitled *Fourier Analysis and Szemerédi's Theorem* in MA 005. For the abstract, see yesterday's Daily News.



Drawing of the opening ceremony by Karl Heinrich Hofmann.
We remind you of his mathematical cartoons shown in the mathematics library.

"Of Wo∫Men and Mathematics"

My impression of the exhibition *Of Wo∫Men and Mathematics* by Springer-Verlag: a piece of mathematics history that should not be missed!

On the occasion of the International Congress of Mathematicians 1998 in Berlin, Springer-Verlag is presenting a historical exhibition at Humboldt University, showing how Springer, now one of the leading publishers of scientific books, got involved in the publication of mathematical books and how the relationship between mathematicians and their publisher developed. Yesterday I had an opportunity to view this remarkable exhibition and was pleased to find many interesting documents about the origin of those famous Springer books and journals from which I learned mathematics.

It seems that one of the first big Springer publications in mathematics was the "Gesammelte mathematische Abhandlungen" by H. A. Schwarz, who was highly praised by his teacher Weierstraß. In passing, I came across a letter from Schwarz to Weierstraß showing a curious (but very interesting) misunderstanding on the part of Schwarz about a possible appointment at Leipzig.

Springer's contact with the mathematical community started in the late 19th century with the Berlin school, at that time one center of mathematical research. But in the early

20th century this emphasis shifted to Göttingen, which led to the publication (by Springer) of the mathematical journal "Mathematische Zeitschrift" and later on "Mathematische Annalen". In this respect the "Dankadresse" (1923) to the publisher Ferdinand Springer signed by the editors of "Mathematische Annalen" including F. Klein, D. Hilbert, I. Schur, L. Lichtenstein, A. Einstein, etc. is most impressive.

It is an interesting coincidence that young Teiji Takagi (a founder of class field theory) followed the same path as Springer during his four-year stay in Germany as a visiting fellow from the Japanese government. Just one hundred years ago, in 1898, Takagi, then 23 years old, came to Berlin to study "advanced" mathematics, attending the courses of Schwarz, Fuchs and Frobenius. But after three semesters he moved to Göttingen to meet David Hilbert, who had just finished writing the "Zahlbericht". This spring in Tokyo we celebrated the centenary of class field theory.

The history of Springer is a testimony to the importance of the mutual relationship based on the confidence and friendship between authors and their publisher. The way of publishing books is changing very rapidly, and so are the mathematics and the mathematicians. But I think the importance of this partnership will remain unchanged.

Ichiro Satake, Tokyo and Berkeley

[See also the announcement section. Ed.]

Mathematics on TV

A number of TV stations will carry programs on the ICM or mathematics at large in the next few days.

Channel B1: Rerun of yesterday's special; today 15:15–15:45.

Channel 3-sat: 10 minutes in the program *Kulturzeit*, today 19:20, rerun tomorrow at 9:00.

Channel arte: Program *Metropolis*, Saturday, August 22, 21:30 or 21:40 (30 min.); a more detailed documentary is planned.

Channels arte and SFB: *Themenabend* jointly with arte-Paris, date and time to be announced.

Channel arte: *Archimedes*, October 6, 20:00.

Scientific Program – Changes

1. Logic

no changes

2. Algebra

no changes

3. Number Theory and Arithmetic Algebraic Geometry

no changes

4. Algebraic Geometry

no changes

5. Differential Geometry and Global Analysis

no changes

6. Topology

no changes

7. Lie Groups and Lie Algebras

no changes

8. Analysis

17:15 – Moved: Shigeyoshi Owa, *Some Properties for Convulutions* ⇒ Aug 25, 15:30, MA 309
16:15 – New (moved): MA Exhibition Area 1st Floor, Oxana A. Ziza, *Postersession: On absolute summability of orthogonal series* (from: Aug 26, 14:00, MA 144)
16:15 – New (moved): Exhibition Area 1st Floor, Gabriela Kohr, *Postersession: The method of Loewner chains used to introduce some subclasses of biholomorphic mappings in* C^n (from: Aug 24, 14:30, MA 041)

9. Ordinary Differential Equations and Dynamical Systems

no changes

10. Partial Differential Equations

16:15 – New (moved): MA 301, Michel L.E. Rieutord, *A boundary value problem of mixed type in a spherical shell* (from: Section 12, Aug 24, 16:45, H 107)

11. Mathematical Physics

no changes

12. Probability and Statistics

no changes

13. Combinatorics

16:15 – New (moved): MA 144, Abdelkader Khelladi, *Some Results on the Fiber Product of Graphs* (from: Aug 26, 16:15, H 106)

14. Mathematical Aspects of Computer Science

no changes

15. Numerical Analysis and Scientific Computing

no changes

16. Applications

14:30 – Cancelled: Debnath Lokenath, *Resonant Phenomena in Linear and Nonlinear Water Waves*, 14:30, H 106

17. Control Theory and Optimization

no changes

18. Teaching and Popularization of Mathematics

no changes

19. History of Mathematics

no changes

20. Special Activities

no changes

Ad-hoc Talks

1. Logic

no ad-hoc talk

2. Algebra

no ad-hoc talk

3. Number Theory and Arithmetic Algebraic Geometry

14:00 Duncan J. Melville (St. Lawrence University, USA), *Postersession: t. b. a.*, Exhibition Area 1st Floor

4. Algebraic Geometry

no ad-hoc talk

5. Differential Geometry and Global Analysis

no ad-hoc talk

6. Topology

no ad-hoc talk

7. Lie Groups and Lie Algebras

no ad-hoc talk

8. Analysis

14:00 Oleg V. Matveev (?, Russia), *t. b. a.*, MA 144
14:15 Nicolae Tita (?, Romania), *Bilinear operators and some generalizations of the approximation spaces*, MA 144
16:15 Oxana A. Ziza (Moscow State Institute of Electronics and Mathematics, Russia), , MA 144
16:15 Ajit Iqbal Singh (Dept. of Mathematics Ohio University, IND), *Postersession: Hypergroup-based stationarity properties of stochastic processes*, Exhibition Area 1st Floor
16:15 Gabriela Kohr (Faculty of Mathematics Babes-Bolyai University, Romania), *Postersession: The method of Loewner chains used to introduce some subclasses of biholomorphic mappings in C^n*, Exhibition Area 1st Floor
16:15 Mirela Kohr (Faculty of Mathematics Babes-Bolyai University, Romania), *Postersession: t. b. a.*, Exhibition Area 1st Floor
16:15 Philippe Elbaz-Vincent (Université de Montpellier II, Montpellier, France and Universität GH Essen, Germany, France), *Postsersession: A triple crisis of irrationality, in music, in mathematics and astronomy*, Exhibition Area 1st Floor
16:15 Oscar Joao Abdounur (Institute of Mathematics from the University of Sao Paulo, Brazil), *A triple crisis of irrationality, in music, in mathematics and astronomy*, Exhibition Area 1st Floor

9. Ordinary Differential Equations and Dynamical Systems

14:00 Viktor Ivanovich Tkachenko (Institute of Mathematics Ukrainian National Academy, Ukraine), *On linear almost periodic systems with bounded solutions*, MA 304
14:15 Felix Sadyrbaev (Uni Riga Institute of Mathematics and Computer Science , Latvia), *Nonlinear separation of zeros*, MA 304
14:30 Anca Stefania Barbu (Piata Vasile Milea 1, Pitesti Romania University of Pitesti, Romania), *Asymptotic Analysis of the Telegraph Equations*, MA 304
15:00 Bahman Mehri (?, Iran), *On the existence of periodic solutions for nonlinear ODE*, MA 144
15:15 Dariush Shadman (?, Iran), *On the boundedness of the solutions of a certain nth order ODE*, MA 144
15:30 Nataliya Nikolaevna Chynkulyak (Institute of Applied Mathematics and Mechanics of NASU, Ukraine), , MA 144

10. Partial Differential Equations

16:15 Michel L.E. Rieutord (Observatoire Midi-Pyrénées, France), *A boundary value problem of mixed type in a spherical shell*, MA 301
16:30 Andrei V. Faminskii (?, Russia), *Initial boundary-value problems for the Korteweg - de Vries equation*, MA 301
16:45 Evgeniy Yurévich Panov (Novgorod State University, RUSSIA), *On some hyperbolic systems of conservation laws*, MA 301

11. Mathematical Physics

no ad-hoc talk

12. Probability and Statistics

16:15 Monica Taljaard (University of Port Elizabeth, South Africa), *Weighting Adjustments for Non-response: The Importance of forming Homogeneous Weighting Classes*, MA 304
16:30 Olena Roman (Institute of Mathematics, Ukraine), *Symmetry of nonlinear equations of relativistical quantum mechanics*, MA 304
16:45 Zohel S. Khalil (Concordia University Dept. of Math & Statistics, Canada), *On the total amount of lost information in a TASI system*, MA 304
17:15 Mikhail Moklyachuk (Kyiv University Mechanics and Mathematics Faculty, Ukraine), *Limit theorems and stability of Markov impulse systems*, MA 304
17:30 Anatoly A. Naumov (NSTU, Russia), *Design of experiments and its regularization*, MA 304
17:45 Yevgeny Tsarkov (?, Latvia), *Limit theorems and stability of Markov impulse systems*, MA 304

13. Combinatorics

14:00 Gleb A. Koshevoy (Universität zu Köln Seminar f. Wirtschafts- u. Sozialst., Deutschland), *Discrete convexity and unimodularity*, MA 301
14:15 Kenneth C. Millett (Department of Mathematics, USA), *Monte Carlo Explorations of Polygonal Knot Spaces*, MA 301
14:30 Vladimir S. Shevelev (Rostov State Building University RGSU, Russia), *Enumeration of derangements belonging to prescribed cyclic class and containing a fixed subset of elements*, MA 301
15:00 Antonio Campillo (Departamento de Algebra Geometría y Topología, Spain), *Computing equations of monomial projective curves*, MA 304
15:15 Yoshiyasu Ishigami (University of Electro-Communications, Japan), *Covering an Orthogonal Polygon with Diagonal Rectangles*, MA 304
15:30 Miguel Abreu (Instituto Superior Tecnico Dep. de Matemática, Portugal), *Classification of Cayleys graphs of order 12*, MA 304

14. Mathematical Aspects of Computer Science

15:00 Serguei Bazarov (Moscow State University Dept.of Mathematics, Russia), *The declarative NORMA language for the solution of mathematical physics problems on multiprocessors computers*, MA 301
15:15 Altynbek Sharipbaev (?, Kasachstan), *A verification of the Refal-programms*, MA 301

15. Numerical Analysis and Scientific Computing

17:15 Kai Schneider (Institut für Chemische Technik Universität Karlsruhe (TH), Germany), *An Adaptive Wavelet Method for the Numerical Simulation of Two–dimensional Flame Balls*, MA 301
17:30 Mechthild Thalhammer (Institut für Mathematik und Geometrie, Austria), *Non-smooth data error estimates for linearly implicit Runge-Kutta methods and applications*, MA 301
17:45 Juri M. Rappoport (Russian Academy of Sciences, Russia), *Numerical evaluation of modified Bessel functions*, MA 301

16. Applications

no ad-hoc talks

17. Control Theory and Optimization

no ad-hoc talks

18. Teaching and Popularization of Mathematics

no ad-hoc talks

19. History of Mathematics

no ad-hoc talks

Miscellaneous Announcements

ICIAM 98: The Fourth International Congress on Industrial and Applied Mathematics (ICIAM 99) will be held in Edinburgh, Scotland, from the 5th to the 9th of July 1999 (see the second announcement of ICIAM 99 in your ICM bag). More information can be obtained from Jack Carr who will be at the London Mathematical Society desk between 12:00 and 13:00 each day until Tuesday, August 25.

Urania program: The exhibitions in the Urania will (officially) open tonight at 18:00; the VideoMath Festival will start at 19:00.

VideoMath Festival: 19:00 International Premiere of the VideoMath Reel (96 min): the 24 winners of the international VideoMath competition. Additionally Tom Noddy's 'Bubble Magic' is shown.
Location: Urania, Kleiststraße 13–14 (use subway U1, U2 or U15 to "Wittenbergplatz"); admission 6 DM (tickets available at the Urania counter).

New from Springer: *Mathematics Without Borders. A History of the International Mathematical Union.* by Olli Lehto. The author will be at the Springer booth signing his book today at 12:15.

Of Wo∫Men and Mathematics: Springer-Verlag cordially invites all congress delegates to a reception at the exhibition *Of Wo∫men and Mathematics. Authors and their Publisher* at 7 p.m. Location: Humboldt University (Kommode), Unter den Linden 9–11 (opposite the main building of Humboldt University).

Academic Press Daily Book Drawing: Nataliya V. Balashevich, of National Academy of Sciences of Belarus, Institute of Mathematics, is the winner of the Aug. 19 daily book drawing at the Academic Press stand. Come claim your prize of the following title: "A Wavelet Tour of Signal Processing", Stéphane Mallat.

Piano recital: For the piano recital of Tamara Kokilashvili (Sunday, August 25, 11:00) tickets are still available at the Urania counter.

Footloose Tours

In case a tour you are interested in is booked out please continue registering in the conference office to show your interest in a repetition since we try to repeat this tour another day.

Please do not register electronically any more; instead, book tours directly at the Footloose counter in the main building of the Technical University. You are kindly requested to pay the tours *Jewish Berlin*, *Fascism: The pathos of power*, *Picture Gallery* and *Behind the scenery of the German Opera House* before the start of the tour at the Footloose counter.

Cancelled: Gipsformerei (plaster moulders of the Berlin museums)
Scheduled Date: Friday, August 21
Scheduled meeting: 9 a.m., main building TU

Path to the Jewish Berlin; Tour A/B booked out
Description: Guided tour in English; this tour has to be paid in advance at the footloose counter/conference office.

Mathematics and Ceramics
Description: Guided tour through the exposition "Mathematik und Keramik" with the results of a competition on the occasion of ICM'98.
Date: Tour 36 a) Friday, August 21
Meeting: 10.00 a.m. in front of the main building, Technical University or at 10.30 a.m. in front of Urania
Duration:
Fees: no fees (public transport ticket required)

New: Sightseeing by public transport: From Bahnhof Zoo to Alexanderplatz
Description: This tour by public transport (bus 100) and a short walk covers e.g. Castle Bellevue, Reichstag, Brandenburger Tor and the historic mile "Unter den Linden" with Humboldt University, Staatsoper, Kronprinzenpalais and Gendarmenmarkt.
Date: Tour 23 C: Friday, August 21
Meeting: 11.00 a.m. in front of the main building, Technical University
Duration: approx. 1 1/2 hours
Fees: none (public transport ticket required)

Behind the scenery of the "German Opera House" (Deutsche Oper, Bismarckstr. 34–37)
Description: guided tour (in German and English)
Date: Friday, August 21
Meeting: 1.30 p.m. in front of the main building, Technical University
Duration: ca. 2 1/2 hours
Fees: approx. DM 10.– (public transport ticket required). This tour has to be paid in advance at the footloose counter/conference office.

Egyptian Museum and Park of Charlottenburg Castle; booked out
Description: A visit to Nefertiti (approx. 1350 B.C.) and Echnaton in the Egyptian Museum — followed by a walk through the park of Charlottenburg Castle (a majestic royal palace built for the wife of Prussian King Frederick I from 1695 to 1699)

Soccer game for ICM'98 participants
Description: Soccer game between participants of the ICM'98.
Date: Friday, August 21
Meeting: 3.00 p.m.
Duration: 3 hours
Fees: no fees
Registration: `dalitz@zib.de` (subject: ICM'98 - soccer match)

New: Of Wo/Men and Mathematics
Description: A guided tour to the exhibition *Of Wo/Men and Mathematics. Authors and their Publisher* is offered today.
Date: Tour 38 A: Friday, August 21
Meeting: 2:00 PM at the Springer-booth in the main building, Technical University
Duration: to be announced
Fees: none (public transport ticket required)

Food and Chaos

Yesterday, someone reported that the canteen of the university was flooded by mathematicians. This caused some confusions, because the payment procedure was not clear. Here is the rule: You must not use those check-outs which are marked "ONLY Giro-Vend". These check-outs are only able to accept special credit cards.

On the 9th floor of the Mathematics Building there is another cafeteria (lunch around 7 DM).

Imprint

Daily News of the International Congress of Mathematicians
August 18 – 27, 1998,
Berlin, Germany

Editor in Chief:
Dirk Werner
Editors: Christoph Best,
Sabina Jeschke,
Peter Müller,
Jörg Rambau,
Tanja Schilling,
Erhard Zorn

LaTeX support:
Alexander Schwartz

Office Hours: 15:00 – 16:00
at conference office H 2036