Daily News

International Congress of Mathematicians
Saturday, August 22, 1998 – No. 4

Talks by Fields Medalists

Today at 15:00 Curtis McMullen will present his lecture entitled *Rigidity and inflexibility in conformal dynamics* (see p. 119 of the abstract book).

Today at 17:15 Richard Borcherds will deliver his lecture *What is moonshine?* [Abstract: I will try to explain what Conway and Norton's moonshine conjectures are, and give a non-technical explanation of some of the relations with Lie algebras, vertex algebras, and automorphic forms.]

Contrary to previous announcements in the program book or the Daily News both lectures will be held in H 105 (Auditorium Maximum).

Date Nofretete tonight!

More than 50 cultural institutions of Berlin will leave their doors open tonight until 2:00 (a.m.!): the so-called *Lange Nacht der Museen* (Long Night of the Museums) is taking place for the fourth time in Berlin. Five different routes have been designed: they pass by some of the most interesting cultural sites, and a special shuttle service allows you to get along in a convenient way. For DM 18.– you can purchase a combination ticket at each of the museums or at the Berlin theaters.

Nofretete as seen by K.H. Hofmann

This ticket entitles you to visit all those museums that are located along the shuttle-routes as well as to use the shuttles.

For example, route 1 visits seven sites, among them *Deutsches Historisches Museum*, the *Zoo*, and the *Egyptian Museum*, where you can see the statue of Nofretete.

Most institutions feature a special program. For instance, there is a *courtly garden party* around the *Orangerie* of *Schloß Charlottenburg* (route 1A), the *Technikmuseum* shows a farrier at work (route 4), and in the *Musikinstrumentenmuseum* you can listen to concerts given on historic instruments (route 3).

You can find detailed information in the city magazines of Berlin (e.g., TIP, ZITTY, PRINZ), which are available at every newspaper rack.

Scientific Program – Changes

1. Logic

no changes

2. Algebra

16:30 – New (moved): MA 304, Johannes H. Meyer, *Forcing Linearity Numbers* (from: Aug 25, 14:15, MA 311)
17:15 – Moved: Gunter Malle, *Germany* ⇒ Aug 22, 17:15, MA 005

3. Number Theory and Arithmetic Algebraic Geometry

16:15 – Cancelled: Jörg Wildeshaus, *Degeneration of Shimura Polylogarithms*, 16:15, MA 042

16:30 – New (moved): MA 042, Paula B. Cohen, *Siegel's Lemma, Padé Approximations and Jacobians* (from: Aug 24, 14:15, H 107)

4. Algebraic Geometry

14:15 – Cancelled: Vladimir Shpilrain, *Embeddings of curves in the plane*, 14:15, MA 042

5. Differential Geometry and Global Analysis

no changes

6. Topology

15:00 – New (moved): MA 301, Yuri V. Muranov, *Surgery and splitting obstruction groups for one-sided submanifolds* (from: Aug 26, 14:15, H 112)

7. Lie Groups and Lie Algebras

no changes

8. Analysis

17:15 – Cancelled (moved): Elias Flytzanis, *An invariance property of Quadratic forms* already held on Aug 21, 15:00, MA 314

9. Ordinary Differential Equations and Dynamical Systems

16:45 – Cancelled: Govindan Rangarajan, *A New Method for Computing Lyapunov Exponents*, 16:45, H 111

10. Partial Differential Equations

14:00 – Cancelled: Hakop A. Hakopian, *On two partial differential and one algebraic systems*, 14:00, H 110

11. Mathematical Physics

14:00 – Cancelled: Miodrag Perovic, *Some Comments Concerning the Application of the Discrete Eigenvalue Theory*, 14:00, H 1029
15:00 – Cancelled: Pierre Mathieu, *Generating functions for fusion rules*, 15:00, H 107

12. Probability and Statistics

14:00 – New (moved): MA 144, Vesna Perisic, *On some energy inequalities* (from: Aug 25, 17:30, H 107)

13. Combinatorics

no changes

14. Mathematical Aspects of Computer Science

no changes

15. Numerical Analysis and Scientific Computing

16:15 – Cancelled: Peeter Oja, *Adaptive by monotonicity interpolating splines*, 16:15, Exhibition Area 1st Floor

16. Applications

no changes

17. Control Theory and Optimization

15:00 – Cancelled: Yuri L. Sachkov, *Controllability of right-invariant systems on solvable Lie groups*, 15:00, H 2013

18. Teaching and Popularization of Mathematics

14:00 – Cancelled: Yasuhiro Ozaki, *An Approach in Teaching by Means of the Personal Computer Software "Mathematica"*, 14:00, Exhibition Area 1st Floor
17:15 – Cancelled (moved): Klaus-D. Graf, *Distance learning fördert die Kreativität*

im Mathematikunterricht already held on Aug 21, 17:30, MA 301

17:15 – New: Avery Zoch, *Relations between mathematics and the physical sciences through the Cantor sets*, 17:15, H 2013

19. History of Mathematics

no changes

20. Special Activities

no changes

Ad-hoc Talks

1. Logic

no ad-hoc talk

2. Algebra

16:15 Ahmad Moussavi (Tarbiat Modaress University School of Sciences, Iran), *On The Semiprimitivity of $R[X; F, D]$*, MA 304

16:45 R. Sujatha (Regensburg, Fakultät für Mathematik, Germany), *t. b. a.*, MA 304

3. Number Theory and Arithmetic Algebraic Geometry

no ad-hoc talk

4. Algebraic Geometry

no ad-hoc talk

5. Differential Geometry and Global Analysis

14:00 Yurii Shevchenko (Kaliningrad State University, Russia), *Connections of holonomic and non-holonomic smooth manifolds*, MA 304

14:15 Abdullah Magden (Atatürk University Fen Edebiyat Fakultesi, Turkey), *t. b. a.*, MA 304

14:30 Algimantas Pranas Urbonas (?, Lituanie), *La mobilité maximale des espaces des éléments linéares*, MA 304

6. Topology

15:00 Yuri V. Muranov (Dept. of Mathematics, VSU, Russia), *Surgery and splitting obstruction groups for one-sided submanifolds*, MA 301

15:15 James R. Bozeman (Lyndon State College, USA), *Unique Prime Decompositions of Pairs of Solid Tori*, MA 301

7. Lie Groups and Lie Algebras

16:15 Do Ngoc Diep (International Centre for Theoretical Physics, Italy), *On the Structure of Lie Group C*-algebras and Compact Quantum Groups*, MA 301

8. Analysis

15:00 R.K. Kumbhat (JNV University Department of Mathematics, India), *Some Special Functions of Matrix Arguments*, MA 304

15:15 Alexandre A. Egorov (Sobolev Institute of Mathematics, Russia), *Stability of classes of Lipschitz-continuous solutions to systems of first-order linear partial differential equations*, MA 304

15:30 Jiecheng Chen (Mathematisches Seminar Universität Kiel, Germany), *Some recent results about Hardy spaces on manifolds*, MA 304

16:15 Micah O. Osilike (University of Nigeria Nsukka Department of Mathematics, Nigeria), *Iterative solutions of nonlinear equations of the accretive type*, MA 144

16:30 Mirgand Schabozow (?, ?), *n-Widhts of some classes analytical functions in the space $H'q$*, MA 144
16:45 Petre Osmatescu (?, ?), *Basis of subtle spaces and some applications*, MA 144
17:15 Alireza Medghalchi (Faculty of Math. Sci. and Comp. Eng., Iran), *Amenability of the second dual of hypergroup algebras*, MA 304
17:45 Shobh N. Singh (Dept. of Math. Univ. of Transkei, South Africa), *On a model representation for a normal operator in Krein space*, MA 304

9. Ordinary Differential Equations and Dynamical Systems

16:15 Fernando Flavio Ferreira (Univ. Moderna, Portugal), *Smoothness of conjugacies at a point imply global smoothness: hyperbolic maps on surfaces and Markov families*, Exhibition Area 1st Floor
16:15 Gerhard König (?, Germany), *Fast and comfortable access to literature in mathematics education*, Exhibition Area 1st Floor

10. Partial Differential Equations

no ad-hoc talk

11. Mathematical Physics

no ad-hoc talk

12. Probability and Statistics

17:15 Vladimir Vasilchuk (Institute for Low Temperature Physics, UKRAINE), *On the Law of Addition of Random Matrices*, MA 301
17:30 Sakhavat Mail Zarbaliev (Moscow State University, Russia), *Statistics of convex polygons and approximation of convex curves*, MA 301
17:45 Ernst L. Presman (Central Economics and Mathematical Institute, Russia), *Optimality for the stochastic linear-quadratic regulator*, MA 301

13. Combinatorics

14:00 Vahid Alli (?, Iran), *Totally geodesic subspace of Finsler space*, Exhibition Area 1st Floor

14. Mathematical Aspects of Computer Science

15:00 George M. Adelson-Velsky (?, Israel), $NP = P$, MA 144

15. Numerical Analysis and Scientific Computing

15:00 Uno Hämarik (University of Tartu, Estonia), *On the aposteriori parameter choice in regularization methods*, MA 144

16. Applications

14:00 Aruna Kapur (?, India), *Multiple scale analysis of waves inside three dimensional acoustic flow waveguide with axial temperature gradients and sinusoidal walls*, MA 144
14:15 Kishore B. Marathe (City University of New York Brooklyn College, USA), *Gravitation intention with source*, MA 144

17. Control Theory and Optimization

14:15 Thomas Slawig (TU Berlin, Germany), *Shape Optimization for Navier-Stokes Equations by an Embedding Domain Technique*, MA 301
14:30 Simeliene Nijole (?, Lithuania), *Fundamental models for several levels inventory control processes*, MA 301
16:15 Vladimir M. Marchenko (?, ?), *Canonical forms in control time-delay systems*, MA 141
17:15 Tatyana N. Baidyk (International Renaissance Foundation, Ukraine), *Evaluation of Mathematician Achievements*, MA 301

18. Teaching and Popularization of Mathematics

no ad-hoc talks

19. History of Mathematics

no ad-hoc talks

Miscellaneous Announcements

Academic Press Winner: The winner of Friday's drawing for *Partial Differential Equations And Boundary Value Problems with MAPLE™* by GEORGE A. ARTICOLO is Sebastian Goette, Math Institute, University of Freiburg. Congratulations!

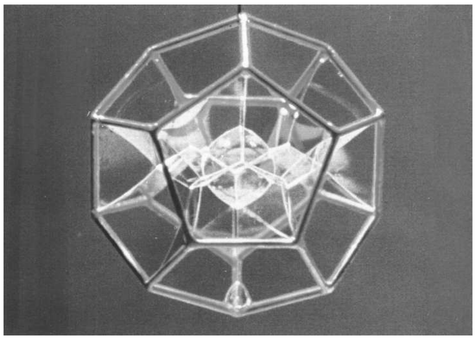
Eating: The restaurant in the TU Math Building opens today from 11:00 through 15:00.

Additional opening hours of the Math Library: The library in the Math Building is open today from 10:00 through 15:00.

Meeting of IMSI (reminder) **:** A meeting of the **International Mathematical Sciences Institutes (IMSI)** will be held on Sunday, August 23, 10:00–15:00
Location: Weierstraß Institute for Applied Analysis and Stochastics (WIAS), Room 405/6, Mohrenstraße 39, 10117 Berlin,
Phone: (030) 20377-587, Fax: (030) 2044975
WWW address: `http://www.wias.berlin.de`
Contact person: Jutta Lohse
(`lohse@wias-berlin.de`)

VideoMath Festival: *Errors Aren't Forever*. This television programme introduces the idea of error correcting codes in the context of the familiar audio compact disc. Technical experts, demonstrations and animations explain both the engineering and the mathematical methods employed to minimise errors in the musical output.
Law of Least Effort. The best route for a sailing boat is the minimum of time over all possible routes. Back to variational calculus, blowing in the wind!
The New Shepherd's Lamp. A voyage through the history of science. From geocentrism to heliocentrism, the planetary system has inspired a host of idealized representations. With Ptolemy, Kepler, Newton, Lagrange and Poincaré, a host of discoveries, revolutions, new movements of thought.
6 p.m. *Location:* Urania, Kleiststraße 13–14 (use subway U1, U2 or U15 to "Wittenbergplatz"); admission 6 DM.

VideoMath Reel: Videos of the 24 winners of the international VideoMath competition. This session also shows *Tom Noddy's Bubble Magic*.
8 p.m. *Location:* Urania, Kleiststraße 13–14 (use subway U1, U2 or U15 to "Wittenbergplatz"); admission 6 DM.



Urania tickets: Urania tickets for all Urania venues, e.g., the lecture by W. Schachermayer on *The Role of Mathematics in Financial Markets* (Tuesday at 19:30), piano recital by Tamara Kokilashvili (Sunday at 11:00) or VideoMath Festival (see p. 37 and p. 160 in the program book for more detailed information on Urania activities) are available from the Souvenir Counter in the Lichthof of the Main Building.

Informal Seminar:
Title: Towards a mechanically proof-checked encyclopedia of mathematics.
Organizers: R. Matuszewski and G. Bancerek.
Time: Today, 14:00–14:45.
Place: MA 314.

Informal Seminar:
Title: Exotic stropharmonic analysis and exotic set theory.
Organizer: A. P. Bredimas.
Time: Monday, August 24, and Wednesday, August 26, 17:15–18:15.
Place: MA 302.

Footloose Tours

Tours today:

New: 27: Walk through the park of Schloß Glienicke "Glienicke Park — the Prussian Arcady"
Description: Glienicke Park is situated in the very southwest of Berlin, at the border of the lake-like Havel river, close to the town of Potsdam. It is a beautifully landscaped park in English style, designed after 1814 by Peter Joseph Lenné, one of the most famous 19th century garden architects in Germany. Because of the harmony between lake, parks and architecture, this landscape between Berlin and Potsdam has been called the Prussian Arcady.
The park includes a variety of historical buildings, some of which are in romantic Italianate style, some in English Tudor style, including the palace of Klein-Glienicke (today a renowned restaurant). The back part of the park opens into the forest "Forst Düppel".
Depending on your interst, we can continue the walk to the Pfaueninsel (Peacock Island) or to the S-Bahn station Wannsee, always following the Havel river, or visit one of the restaurants of the region.
Date: Tour A: Saturday, August 22
Meeting: 1.00 p.m. in front of the main building of the Technical University
Duration: 3 to 4 hours (approx. 1 hour for trip by S-Bahn and bus to the park each way plus a walk of 1 to 2 hours, depending on your interests)
Fees: no fees (you should have a valid BVG ticket for public transportation)

32: A short walk through the City of Vice: Gay Berlin
Description: A short guided walk, visiting places of the historical (and present) "gay Berlin", ending with a visit to the "Schwules Museum" in Kreuzberg.
Date: Saturday, August 22
Meeting: 17:00 in front of the main entrance of the church located at Dennewitzplatz. Public transportation: U2 Bülowstraße (**note time and location change**).
Duration: ca. 2 hours
Fees: None

Tours Sunday:

30: Glider flight
Description: Journey with public transport to Fuerstenwalde, a town near Berlin. Transfer to the airport. A flight takes 15 to 30 minutes, sometimes only 5 minutes, depending on the weather. No flight possible during bad weather.
Date: Sunday, August 23
Meeting: 9.00 a.m. in front of the main building, Technical University
Duration: ca. half a day
Fees: ca. DM 30.– per flight; trainfare (you should have a valid BVG ticket for public transportation)

Cancelled: Calculator Museum Paderborn
Scheduled Date: Sunday, August 23
Scheduled meeting: 6.30 a.m.

27: Walk through the park of Schloß Glienicke "Glienicke Park — the Prussian Arcady"
Description: see above
Date: Tour B: Sunday, August 23
Meeting: 1.00 p.m. in front of the main building of the Technical University
Duration: 3 to 4 hours (approx. 1 hour for trip by S-Bahn and bus to the park each way plus a walk of 1 to 2 hours, depending on your interests)
Fees: no fees (you should have a valid BVG ticket for public transportation)

Tours Monday:

25: Botanical Garden (Guided tour)
Description: With 20.000 different species of plants on 43 hectares one of the largest and most diverse botanical gardens
Date: Monday, August 24
Meeting: 9.00 a.m. in front of the main building, Technical University
Duration: approx. 2 1/2 hours (1 1/2 hours

guided by the custodian of the Botanical garden)
Fees: Entrance and guide approx. DM 6.– (you should have a valid BVG ticket for public transportation)

9: Gedenkstätte Deutscher Widerstand
Description: Visit of the German Resistance Memorial Center (guided tour in English)
Date: Monday, August 24
Meeting: 10.00 a.m. in front of the main building, Technical University
Duration: 2–3 hours
Fees: no fees (you should have a valid BVG ticket for public transportation)

11: A Visit to Humboldt University
Description: The places where Weierstraß and Einstein lectured; guided tour in German and English
Date: Tour 11C: Monday, Aug 24
Meeting: 10:00 in front of the main building of Technical University
Duration: about 2 hours
Fees: no fees (you should have a valid BVG ticket for public transportation)

23: Sightseeing by public transport: From Bahnhof Zoo to Alexanderplatz
Description: This tour by public transport (bus 100) and a short walk covers e.g. Bellevue Palace, Reichstag, Brandenburg Gate and the historic mile "Unter den Linden" with Humboldt University, Staatsoper, Kronprinzenpalais and Gendarmenmarkt.
Date: Tour 23E and F; Monday, August 24
Meeting: 11:00 in front of the main building of Technical University
Duration: about 1 1/2 hours
Fees: no fees (you should have a valid BVG ticket for public transportation)

2: Guided Tours of Berlin in Russian
Description: see `http://www.blinx.de/rul/rus-touren`
Date: Monday, August 24 (and if requested Thursday, August 27)
Meeting: At noon in front of the main building, Technical University
Duration: approx. 2 1/2 hours
Fees: no fees (you should have a valid BVG ticket for public transportation)

39: Visit of the former GDR political prison Hohenschönhausen
Description: The former prison is now a memorial site. A former refugee who was later imprisoned for helping other to flee from the GDR will guide you. **Please register as soon as possible at the footloose counter in the main building of the Technical University. Please indicate if you plan to meet the group at the site.**
Date: Monday, August 24
Meeting: 13:30 in front of the main building of the Technical University. You may join in at the site, Genselerstr. 66, by 14:30
Duration: 3 1/2 hours
Fees: no fees (you should have a valid BVG ticket for public transportation)

5: Tour through the new Berlin (guided tour in English, booked out)
Description: Visit of the building activities and the architecture on the former border line in the town centre (Potsdamer Platz, Reichstag, Lehrter Bahnhof etc.).
Date: Monday, August 24; Departure 2.00 p.m.
Meeting: in front of the main building, Technical University.
Duration: 3 hours
Fees: no fees

13: Cemetery tour
Description: Guided tour to "Dorotheenstädtischer Friedhof" This has been a cemetery since 1762; it is the last resting place of famous Berlin personages like Johann Gottlieb Fichte, Georg Wilhelm Friedrich Hegel, Karl Friedrich Schinkel, Heinrich Mann, Arnold Zweig, Anna Seghers, Hanns Eisler, Bertolt Brecht, Helene Weigel, Kurt Weill and Heiner Müller.
Date: Monday, August 24
Meeting: 2.15 p.m. in front of the mathematics building, Technical University
Duration: 2–3 hours
Fees: approx. DM 10.– per person (you should

have a valid BVG ticket for public transportation)

6: Berlin alternative
Description: An evening with Jazz in a Prenzlauer Berg pub
Date: Monday, August 24
Meeting: 5.00 p.m. in front of the main building, Technical University
Duration: open end
Fees: approx. DM 15.– (you should have a valid BVG ticket for public transportation)

<u>*Available tours:*</u>
The following tours are still or again bookable:

1: Berliner Dom – Visit and organ recital (Tuesday, August 25)
7: Path to the Jewish Berlin (Tuesday, Aug. 25) **This tour has to be paid in advance at the footloose counter.**
16: Picture Gallery (Wednesday, Aug. 26) **This tour has to be paid in advance at the the footloose counter.**
22: Visit to "Hackesche Höfe" (Wednesday, Aug. 26)
36: Mathematics and Ceramics (Tuesday, Aug. 25)
37: Strolling through the zoo (Wednesday, Aug. 26)
38: Guided tour through the exposition "Of Wo$\int$Men and Mathematics" (Tuesday, Aug. 25)

Puzzles and Recreation

Solution to:	**Raymond Smullyan: Alice in Puzzleland**
taken from:	**Tweedledum or Tweedledee?**

ROUND ONE The speaker was Tweedledee.
ROUND TWO The first one is Tweedledum; both are carrying orange cards.
ROUND THREE The first one is Tweedledum.
ROUND FOUR The first one is Tweedledee.
ROUND FIVE The first one is Tweedledum.
ROUND SIX The first one's statemant is true (their cards are of the same color).

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