Daily News

International Congress of Mathematicians
Monday, August 24, 1998 – No. 5

Enzensberger lecture at the Urania

Tonight at 19:30 Hans Magnus Enzensberger will present a talk at the Urania entitled *Zugbrücke außer Betrieb, oder die Mathematik im Jenseits der Kultur – eine Außenansicht* (in German). The admission is free. Enzensberger, who is renowned for his poetry and his acute political writing, has also published a children's book: *Der Zahlenteufel. Ein Kopfkissenbuch für alle, die Angst vor der Mathematik haben.*

A mathematician apparently in the "kingdom-come of culture" is described by Ian Stewart in the preface of his book *The Problems of Mathematics*:

"ANDROID: Good evening, viewers, and welcome yet again to *Boffins and Brains*, the show where scientists let their hair down and tell us what they're up to. Tonight we have a mathematician in the studio. [Turns to the mathematician.] So, mathematician: what delights do you have in store for us?

[...]

MATHEMATICIAN: I thought I'd say a bit about how you can get a TOP but non-DIFF 4-manifold by surgery on the Kummer surface. You see, there's this fascinating cohomology intersection form related to the exceptional Lie algebra E_8, and ...

ANDROID: [Sarcastically] That's fascinating.

MATHEMATICIAN: [Surprised and pleased] Thank you.

[...]

ANDROID: Can you *explain* it in words ordinary mortals can understand?

MATHEMATICIAN: Look, buster, if ordinary mortals could understand it, you wouldn't need mathematicians to do the job for you, right?

ANDROID: I don't want the technical details. Just a general feeling for what's going on.

[...]

MATHEMATICIAN: But how can I explain things properly if I don't give the details?

ANDROID: How can anyone else understand them if you do?

MATHEMATICIAN: But if I skip the fine points, some of the things I say won't be completely true! How can I talk about manifolds without mentioning that the theorems only work if the manifolds are finite-dimensional paracompact Hausdorff with empty boundary?

[...]

ANDROID: Lie a bit.

MATHEMATICIAN: Oh, but I couldn't do that!

ANDROID: Why not? Everybody *else* does."

Abel Bicentennial in 2002

The year 2002 marks the bicentennial of the birth of NIELS HENRIK ABEL (1802–1829). To commemorate this event, there will be held an **Abel Conference** at the University of Oslo, Norway, in May or June 2002. The conference will aim at presenting an overview of the mathematical heritage of Abel, and, based on this heritage, identify new mathematical trends for the 21st century. For further information, see `http://www.math.ntnu.no/abel`.

Scientific Program – Changes

1. Logic

14:00 – Moved: Peter Michael Schuster, *A Sequence Model for Constructive Nonstandard Analysis* ⇒ today, 17:45, MA 042

2. Algebra

17:45 – Cancelled: Peter Schauenburg, *Hopf algebras with a weak projection*, 17:45, MA 311
17:45 – New (moved): MA 311, Bernhard Drabant, *Co-cycle cross product bialgebras* (from: Aug 26, 15:00, MA 311)

3. Number Theory and Arithmetic Algebraic Geometry

15:15 – Cancelled (moved): Florian G. Luca, *Equations Involving the Euler ϕ Function* already held on Aug 21, 16:30, MA 141
14:15 – Cancelled (moved): Paula B. Cohen, *Siegel's Lemma, Padé Approximations and Jacobians* already held on Aug 22, 16:30, MA 042

4. Algebraic Geometry

14:00–14:45 New Chair: Mina Teicher in session *Moduli Spaces and Mathematical Physics*, MA 042
14:00 – Cancelled (moved): Sheldon H. Katz, *Geometric Engineering of Quantum Field Theories* already held on Aug 19, 15:30, MA 304

5. Differential Geometry and Global Analysis

no changes

6. Topology

14:00 – Cancelled: Paul R. Turner, *The homology of spaces representing exact cohomology theories*, 14:00, Exhibition Area 1st Floor
14:00 – Moved: Leonard Mdzinarishvili, *Partially continuous Alexander-Spanier cohomology theory* ⇒ Aug 26, 15:30, H 112
16:45 – New: Efthimios Kappos, ***New title:*** *Sections of affine distributions*, 16:45, H 112
17:15 – New (moved): H 112, Andrei Yu. Vesnin, *On 3-manifolds with cyclic symmetry* (from: Aug 21, 17:45, H 112)
17:15 – Cancelled (moved): J. Scott Carter, *The Diagrammatics of Hopf Categories and Invariants of 4-dimensional M* already held on Aug 21, 17:45, H 112

7. Lie Groups and Lie Algebras

16:15 – Cancelled (moved): Duncan J. Melville, *A survey of quantum deformation results* already held on Aug 20, 14:00, Exhibition Area 1st Floor

8. Analysis

14:30 – Cancelled: Gabriela Kohr, *Univalent mappings of several complex variables*, 14:30, MA 041

9. Ordinary Differential Equations and Dynamical Systems

14:00 – New: Shunian Zhang, *Stability of neutral delay difference systems*, 14:00, H 110
14:00 – New (moved): H 111, John C. Mayer, *Invariant subcontinua in Siegel and Cremer Julia sets of polynomials* (from: Aug 26, 16:15, H 111)
14:00 – Cancelled (moved): Minoru Nakano, *On the WKB method and Airy functions* already held on Aug 21, 16:45, H 111

10. Partial Differential Equations

16:45 – Cancelled (moved): Michel L.E. Rieutord, *A boundary value problem of mixed type in a spherical shell* already held on Aug 20, 16:15, MA 301

11. Mathematical Physics

14:00 – Cancelled: Alexander Zlotnik, *Global*

weak solutions to the equations of one-dimensional motion of a viscous heat-conducting gas with nonsmooth data, 14:00, H 1029
16:15 – New (moved): Exhibition Area 1st Floor, Ammar Sarhan, *Empirical Bayes Estimators of Indexed Parameters of Exponential Families* (from: Aug 21, 14:00, H 1029)
16:15 – New (moved): MA 144, Alexander A. Alexeyev, *Superposition principles for nonlinear partial differential equations* (from: Aug 26, 17:30, H 107)

12. Probability and Statistics

17:45 – Cancelled: A. F. Taraskin, *On problems of statistics for SDE*, 17:45, H 1029

13. Combinatorics

no changes

14. Mathematical Aspects of Computer Science

no changes

15. Numerical Analysis and Scientific Computing

15:30 – Cancelled: Weichung Wang, *Using Preconditioned Conjugate Gradients in Final Iterations of Interior Point Methods*, 15:30, H 2033

16. Applications

16:45 – Cancelled (moved): Zhongling Xu, *Popularization of Math. Methods in China* already held on Aug 21, 16:15, Exhibition Area 1st Floor

17. Control Theory and Optimization

no changes

18. Teaching and Popularization of Mathematics

no changes

19. History of Mathematics

17:30 – New: Osamu Takenouchi, ***New title:*** *The development of the theory of determinant in occidental mathematics and in japanese mathematics*, 17:30, H 2013

20. Special Activities

no changes

Ad-hoc Talks

1. Logic

15:00 Nikolas Efstathiou Sofronidis (Caltech, USA), *Non-classification in spaces of measures, self-adjoint and unitary operators*, MA 301

2. Algebra

14:00 Sorin Noaghi (?, Romania), *Almost Minkowski manifold*, Exhibition Area 1st Floor
14:00 Dinh Tri Nguyen (Department of Mathematics Hanoi University of Technology, Vietnam), *On a two phase free boundary problem*, Exhibition Area 1st Floor
14:00 Omid-Ali Karamzadeh (Chamran University, Iran), *Some algebraic aspects of $C(x)$*, Exhibition Area 1st Floor
14:00 Kaltscho Todorov (?, ?), *On the n-generated Quaternion Groups and the Hadamard matrices*, Exhibition Area 1st Floor
16:15 Ol'ga Yu. Dashkova (University of Dnepropetrovsk, Ukraine), *On groups with restrictions on non-normal subgroups*, MA 301
16:30 Ahmed A. M. Kamal (Cairo University, Egypt), *Strongly right bounded left near-rings*, MA 301
16:45 Ali Iranmanesh (Tarbiat Modarres Uni-

versity, Iran), *H_v-structures associated with generalized $P-$hyperoperations*, MA 301
17:15 Badrié Kojok (?, ?), *Simplification de familles finies de polynômes en vue d'améliorer la résolution des systèmes d'équations associés*, MA 304
17:30 Rakhimov Abdugafuz (?, ?), *Subfactors of a real factor of type IV*, MA 304
17:45 A. Laradji (?, Saudi Arabia), *On an equational property of modules*, MA 304

3. Number Theory and Arithmetic Algebraic Geometry

17:15 Wojciech J. Gajda (Mathematics Department UAM, Poland), *On Galois cohomolgy of some p-adic representations*, MA 301
17:30 Wen Bangyan (?, China), *The Filling-Extending method and D - d analysis*, MA 301

4. Algebraic Geometry

no ad-hoc talk

5. Differential Geometry and Global Analysis

14:00 Elena Nikolaevna Selivanova (Nizhny Novgorod, Russia), *New integrable cases of conservative systems on $S^2_.$*, MA 141
14:15 Leonid Yevtouchik (?, ?), *Nonlinear connections and its applications*, MA 141

6. Topology

no ad-hoc talk

7. Lie Groups and Lie Algebras

no ad-hoc talk

8. Analysis

16:15 Anand Prakash Singh (?, India), *Unbounded components of the normality set*, MA 144
16:30 Pei Yuan Wu (National Chai Tung University, China), *Inscribing ellipse and numerical range*, MA 144
16:45 Francesco De Blasi (University of Roma II, Italy), *Baire category in existence problems for differential equations*, MA 144

9. Ordinary Differential Equations and Dynamical Systems

15:00 Arthur Aslanyan (Kazan State University, Russia), *Criteria of completeness of vector fields in euclidian space*, MA 144
15:15 Alberto Adrego Pinto (IMPA, Brazil), *Flexibility and rigidity for $C^{1+\alpha}$ hyperbolic dynamics*, MA 144
15:30 Alexei A. Mailybaev (Lomonosov Moscow State University, Russia), *On singularities of stability domain boundaries*, MA 144
16:15 Miklos Ronto (?, Hungary), *A numerical-analytic method for parametrized BVPs*, MA 304
16:30 Fangyang Zheng (Ohio State University, USA), *t.b.a.*, MA 304
16:45 Vadim A. Tkachenko (Ben-Gurion University of the Negev, Israel), *t.b.a.*, MA 304

10. Partial Differential Equations

15:00 Albert A. Nazipov (Kazan State University, Russia), *t.b.a.*, MA 304
15:15 Jan Sokolowski (Institut Elie Cartan, Frankreich), *t.b.a.*, MA 304
15:30 Leonid Grigorevich Michailov (Academy of Sciences, Tadschikistan), *Singular Differential Equations*, MA 304
16:15 Mamadsho Ilolov (Parliament of Tajikistan, Tadschikistan), *Invariant torum for evaluation equations*, MA 141
16:30 Kamal N. Soltanov (?, ?), *On some modifications of Navier-Stokes equations*, MA 141

11. Mathematical Physics

14:00 W.S. Leng (London T.O.E. Group London Math. Soc. and Univ. Cambridge, Great Britain), *Universal Singularity Decomposition*, MA 144
14:15 Stepan Duplij (?, Ukraine), *On semisupermanifolds*, MA 144
14:30 Gro Hovhannisyan (Institute of Mathematics Armenian Academy of Science, Armenia), *t.b.a.*, MA 144

16:15 Ryszard Deszcz (Dept. Math., Agricultural University, Poland), *On the equivalence of Ricci-pseudosymmetry and pseudosymmetry*, Exhibition Area 1st Floor
16:15 Hideya Hashimoto (Department of Mathematics Nippon University of Technology, Japan), *Grassmann geometry of 6-dimensional spheres*, Exhibition Area 1st Floor
16:15 Claudia Helena F. Batistela (PUCRS/IMA, Brazil), *Criticality Problem in Slabs by the LTSn Method*, Exhibition Area 1st Floor
16:15 Yuri Prokhorov (Russian Ac. Sci. Math. Inst. Dept. Prob., Russia), *A characterisation problem for quadratic forms in random variables*, Exhibition Area 1st Floor

12. Probability and Statistics

14:00 Sang Moon Kim (Dept. of Math., Seoul National Univ., Korea), *Generalized model of random censorship from both sides*, MA 304
14:15 Yuliya Stepanovna Mishura (Kiev University, Ukraine), *Generalized stochastic integrals with application to fractional Brownian motion*, MA 304
14:30 M. Lutsenko (?, ?), *Minimax constant width confidence intervals for discrete random variables*, MA 304

13. Combinatorics

no ad-hoc talk

14. Mathematical Aspects of Computer Science

17:15 Vladimir Khokhlov (Steklov Mathematical Institute, Russia), *Krawtchouk polynomials applied to analysis of an attack based on Sevastyanov statistics*, MA 144

15. Numerical Analysis and Scientific Computing

14:00 Antonio C. Leitao (Federal Univ. of Santa Catarina Dept. of Mathematics, Brazil), *On a Linear Operator Related to the Solution of Elliptic Cauchy Problems*, MA 301
14:15 Csaba Mihalyko (University of Veszprem, Hungary), *On nonnegative numerical of solving integro-differential equations*, MA 301
14:30 Bosko Jovanovic (University of Belgrade, Faculty of Mathematics, Yugoslavia), *Finite difference schemes on nonuniform meshes*, 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

European Mathematical Society: At the EMS booth on the ground floor, you can obtain information on the activities of the EMS. Moreover, you may preregister for the third European Congress of Mathematics (Barcelona 2000). T-shirts are for sale.

World Mathematical Year 2000 (WMY2000): WMY 2000 is launched by the International Mathematical Union (IMU) and supported by UNESCO. The booth for WMY 2000 in the Lichthof of the Main Building has vital information for mathematicians and for mathematical societies.

Tea-time at WIAS: Situated in Berlin-Mitte close to the historical Gendarmenmarkt, the *Weierstrass Institute for Applied Analysis and*

Stochastics (WIAS) invites the participants of the ICM to a cup of tea or coffee and a chat with collaborators of the institute.

You can inform yourself of some of the institute's current research projects, such as

- mathematical models of carrier transport in semiconductors,
- reaction-diffusion systems,
- phase transitions and hysteresis,
- large-scale chemical computing in process engineering,
- inverse problems of image processing and tomography,
- adaptive cluster analysis,

to name only a few.

To reach the institute from Ernst-Reuter-Platz, take underground line U2 in the direction 'Vinetastraße', get off at station 'Hausvogteiplatz', take exit 'Hausvogteiplatz' and turn right. Then you can already see the institute, which is painted in yellow.
Time: Monday, August 24, 16:00–20:00
Location: Weierstraß Institute for Applied Analysis and Stochastics, Mohrenstr. 39, 10117 Berlin; phone: 20377-587.

Zentralblatt/Math Reviews reception: A reception for reviewers and friends of *Zentralblatt für Mathematik* and Mathematical Reviews will be offered in the Mathematics Library tonight at 20:00. Prof. Schultheiss (FIZ Karlsruhe), Dr. Jane Kister (Math. Reviews), Prof. Bernd Wegner (Zentralblatt) and Prof. John Coates (European Mathematical Society) will read welcome addresses. Refreshments will be served.

TVP Science Publishers: Today is the last working day of the TVP booth (registration area, 1st floor, Lichthof). All participants and guests of ICM'98 who reserved TVP editions are cordially invited to pick up their copies **today, 14:00–16:00**.

Academic Press Winner: The winner of Saturday's drawing for *Mathematics for Dynamic Modeling* by EDWARD BELTRAMI is Boris Rubin, Department of Mathematics, Hebrew University, Jerusalem. Congratulations!

Board game GO: The board game GO (IGO/WEICHI/BADUK) may be played today.
Location: Physics Department, Technical University, Hardenbergstr. 36, room R114.
Time: 16:00 – 23:00

EWM members meeting: All EWM members are invited to discuss the next Interdisciplinary Workshop 2000. The meeting is open to anybody interested in the work of EWM.
Location: MA 314
Time: 16:15, but please check the Notice Board.

Informal Seminar:
Title: p-adic numbers in physics, probability, cognitive sciences, and psychology
Organizer: A. Khrennikov
Time: Today, 15:00–15:45
Place: MA 314

Informal Seminar:
Title: Exotic stropharmonic, resp. exotic operator spectral, analysis
Organizer: A. P. Bredimas
Time: Today, 17:15–18:15
Place: MA 302

Informal Seminar Proposal: A. Chentsov and S. Zavalishchin suggest an informal seminar on "Control Theory: extension problems and singular impulse solutions." Interested persons should meet today at 15:15 near H 111.

Message Boards: Please note: The message boards are on the 2nd floor in front of the conference office H 2036.

Footloose Tours

Tours today:
The meeting point for all tours is in front of the main building of TU.

25: Strolling through the botanical garden (9 a.m.)
9: Gedenkstätte Deutscher Widerstand (Visit of the German Resistance Memorial Center, guided tour in English) (10 a.m.)
11: A Visit to Humboldt University (10 a.m.)
23: Sightseeing by public transport: From

Bahnhof Zoo to Alexanderplatz (11 a.m.)
2: Guided Tours of Berlin in Russian (Noon)
39: Visit of the former GDR political prison Hohenschönhausen (1:30 p.m.)
5: Tour through the new Berlin (2:00 p.m.)
13: Cemetery tour (2:15 p.m.)
6: Berlin alternative (5:00 p.m.)

For a full description of these tours, please refer to Saturday's Daily News or the footloose counter.

Tours tomorrow:

7C: Path to the Jewish Berlin; bookable again
Description: Guided tour in English; this tour has to be paid in advance at the footloose counter/conference office.
Date: Tour C: Tuesday, August 25
Meeting: 09:30 AM in front of the main building, Technical University
Duration: 2–3 hours
Fees: approx. DM 15 per person (you should have a valid BVG ticket for public transportation)
This tour has to be payed in advance at the footloose counter.

36: 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 b) Tuesday, August 25
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 (you should have a valid BVG ticket for public transportation)

20: Guided walk through the zoo (booked out)
Description: The Zoologischer Garten contains the world's largest number of animal species. Guided walk in English.
Date: Tuesday, August 25

26: Shopping in KaDeWe (booked out)
Description: KaDeWe is the biggest department store in Berlin which is worth seeing even without buying something
Date: Tuesday, August 25

38: 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 38C: Tuesday, August 25
Meeting: 2:00 PM at the Springer-booth in the main building, Technical University
Duration: to be announced
Fees: none (public transport ticket required)

12: Tombs of Weierstraß and Kronecker (booked out)
Description: We are going to visit two Berlin cemeteries. First we go to the cemetery of St. Matthew's parish at Großgörschenstraße. Our main aim is the grave of Leopold Kronecker. There, one can also find the graves of other celebrities, e.g., the brothers Jacob and Wilhelm Grimm (most famous for their collection of German fairy tales) and also the 19^{th} century mathematician Lazarus Fuchs. The second destination will be the cemetery of the parish of St. Hedwig's Cathedral, which is situated between Wöhlerstraße and Liesenstraße. There we shall see the grave of Karl Weierstraß. In the same cemetery, the German author Theodor Fontane is buried, who died exactly 100 years ago.
Date: Tuesday, August 25

18: Guggenheim Exposition (booked out)
Description: Visit of the Deutsche Guggenheim Berlin (Deutsche Bank, Unter den Linden). Exposition "Von Dürer bis Rauschenberg", 89 drawings by 18 artists from five centuries, e.g. Dürer, Raphael, Rubens, Rembrandt, Kokoschka, Picasso, Beuys. Guided tour in English.
Date: Tuesday, August 25

12: Berliner Dom – Guided visit and organ recital
Description: The Berlin Dom was constructed under Emperor Wilhelm II according to the plans of the architect Julius Carl Raschdorf between 1894 and 1905; it was damaged 1944

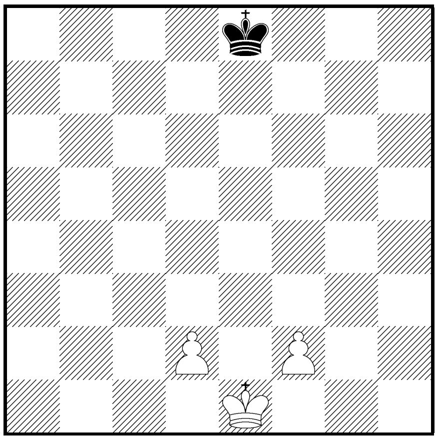
and partly reconstructed from 1975 to 1993. The Dom originally consisted of three churches two of them are still used while the memorial church for Hohenzollern, the Prussian Dynasty, was pulled down in 1975. Beside the architecture, which is typical for Prussia at that time, there are many mosaics, reliefs and paintings to visit. Some of the sculptures are replicas of figures built in 1519. The organ was constructed in 1904 and has 7269 pipes and 113 registers. Organist of the recital: Prof. Giesbert Schneider (Essen)
Registration: `dom@math.fu-berlin.de`

Date: Tuesday, 25 August
Meeting: 6.30 p.m. in front of the Dom. **Attention**: Meeting point is the Berliner Dom, Am Lustgarten (close to the street "Unter den Linden")
Duration: Begin of the guided visit: 6.45 p.m. Begin of the recital: 8.00 p.m. End: approx. 9.00 p.m.
Fees: guide and recital DM 15.– per person (you will have to show your ICM name badge for this reduced fee)

Puzzles and Recreation

From: **Raymond Smullyan: Chess Mysteries of Sherlock Holmes**

The following position is the result of a real game, according to chess rules. White has a bishop on e3 or e4. No piece or pawn has ever moved from a white square to a black square, nor from a black square to a white square. On which square, e3 or e4, does the white bishop stand?



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