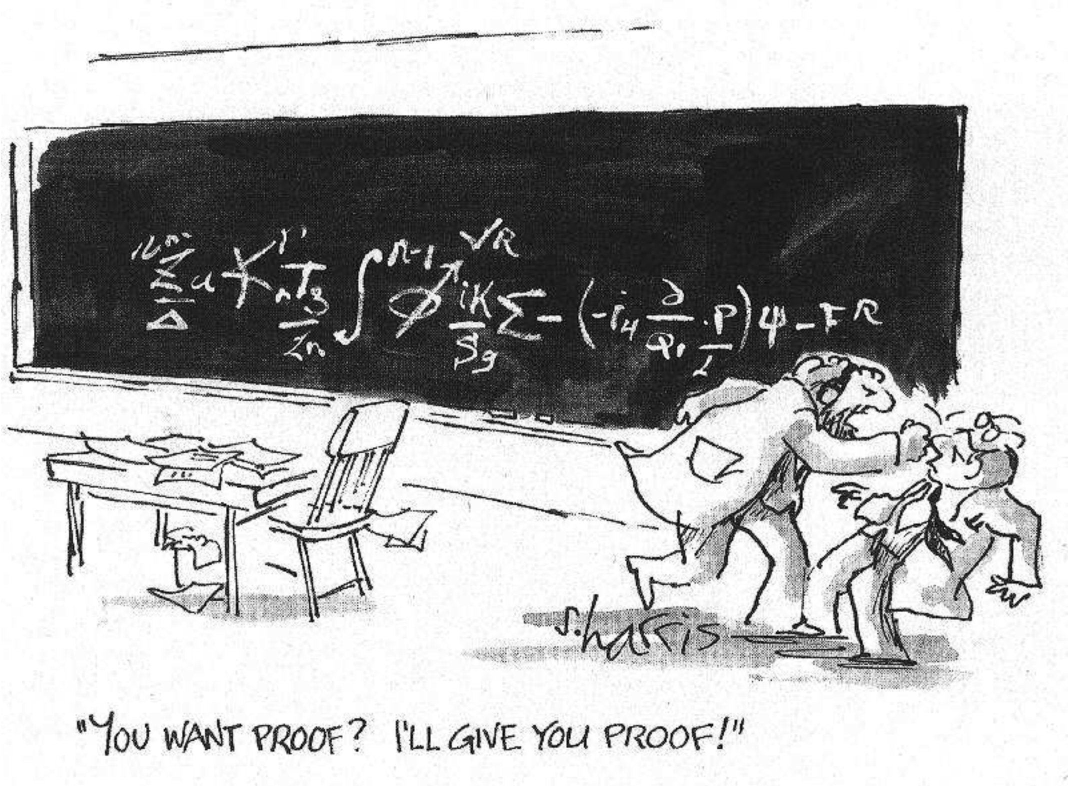
# Daily News

International Congress of Mathematicians
Friday, August 21, 1998 – No. 3


(© 1990, courtesy of Sidney Harris)

## Scientific Program – Changes

**1. Logic**

no changes

**2. Algebra**

no changes

**3. Number Theory and Arithmetic Algebraic Geometry**

**16:30 – New (moved):** MA 141, Florian G. Luca, *Equations Involving the Euler $\phi$ Function* (from: Aug 24, 15:15, MA 311)

**4. Algebraic Geometry**

no changes

**5. Differential Geometry and Global Analysis**

no changes

**6. Topology**

**17:45 – Moved:** Andrei Yu. Vesnin, *On 3-manifolds with cyclic symmetry*
⇒ Aug 24, 17:15, H 112
**17:45 – New (moved):** H 112, J. Scott Carter, *The Diagrammatics of Hopf Categories and Invariants of 4-dimensional M* (from: Aug 24, 17:15, H 112)

**7. Lie Groups and Lie Algebras**

no changes

### 8. Analysis

**14:00 – Moved:** Sen-Yen Shaw, *Convergence rates of regularized approximation processes* ⇒ Aug 26, 14:00, Exhibition Area 1st Floor

### 9. Ordinary Differential Equations and Dynamical Systems

**16:45 – New (moved):** H 111, Minoru Nakano, *On the WKB method and Airy functions* (from: Aug 24, 14:00, H 111)

### 10. Partial Differential Equations

no changes

### 11. Mathematical Physics

no changes

### 12. Probability and Statistics

**14:00 – New (moved):** Exhibition Area 1st Floor, Inna Sergeevna Yemelyanova, *Poster session: Emmy Noether theorem assimilation in classical dynamics* (from: Aug 25, 16:15, Exhib. Area)
**14:30 – New (moved):** H 1029, Mohsen M. Mohammadzadeh, *Spectral Approximation to the Likelihood for an Intrinsic Gaussian Rand* (from: Aug 25, 17:45, H 1029)

### 13. Combinatorics

**14:00 – Cancelled:** Kai-Yao Xiang, *The Minimal Group with Graph and Its Permutation Elements*, 14:00, Exhibition Area 1st Floor

### 14. Mathematical Aspects of Computer Science

**16:15 – Cancelled:** Barbu Gheorghe, *A method for Computer Generation of Random Vectors*, 16:15, MA 043

### 15. Numerical Analysis and Scientific Computing

**16:15 – Cancelled:** Siegfried Prößdorf, *Boundary element methods using multiwavelets*, 16:15, H 2033

### 16. Applications

**15:15 – Cancelled:** Serguei Z. Levendorski, *Generalizations of the Black-Scholes formula For a Class of Truncated Lévy Processes*, 15:15, H 106
**16:15 – New (moved):** Exhibition Area 1st Floor, Yoshiyasu Ishigami, *Poster session: Covering an orthogonal polygon with diagonal rectangles* (from: Aug 20, 15:15, MA 304)
**16:15 – Cancelled:** Alexandra E. Rodkina, *Postersession: On stochastic functional-differential equations and its applications*, 16:15, Exhibition Area 1st Floor
**16:15 – New (moved):** Exhibition Area 1st Floor, Zhongling Xu, *The Popularization of Mathematical Methods in China* (from: Aug 24, 16:45, H 2013)

### 17. Control Theory and Optimization

no changes

### 18. Teaching and Popularization of Mathematics

**17:30 – New (moved):** MA 301, Klaus-D. Graf, *Distance learning fördert die Kreativität im Mathematikunterricht* (from: Aug 22, 17:15, H 2013)

### 19. History of Mathematics

no changes

### 20. Special Activities

no changes

## Ad-hoc Talks

### 1. Logic

**16:15** Dumitru Busneag (?, Romania), *Valuations on Hilbert algebras*, MA 141

### 2. Algebra

**14:00** Stepan Duplij (?, ?), *Continuous Bands From Supermatrices*, MA 144
**14:15** Kaltscho Todorov (?, ?), *On the n-generated Quaternion Groups and the Hadamard matrices*, MA 144
**14:30** Ben Messaoud (?, ?), *New slicing formula*, MA 144

### 3. Number Theory and Arithmetic Algebraic Geometry

**14:00** Hossein Behforooz (Utica College of Syracuse University, USA), *A Curious Convergent Series with Reciprocals of Primes*, MA 301
**14:15** Eleazar Tirado (Apartado 4326, Venezuela), *Towards an Elementary Approach to Fermat's Last Theorem*, MA 301
**14:30** Anne M. Bulckens (Deakin University, Australia), *The Divided Line and Logic Numbers*, MA 301
**14:30** Lere O. Shakunle (The Matran School of Mathematics, Germany), *The Divided Line and Logic Numbers*, MA 301
**15:00** Peter L. Griffiths (Institute of Chartered Accountants, Great Britain), *Fermat's Last Theorem, a Simple Proof based on Irrational Numbers*, MA 301
**15:15** Gerhard Opfer (Institut für Angewandte Mathematik Universität Hamburg, Germany), *Complex version of Catalan's problem*, MA 301
**15:30** Calin A Diaconu (Brown University Dep. of Mathematics, USA), *Some new techniques in the study of automorphic and Hecke L-functions*, MA 301
**16:15** Wu Xin-sheng (?, P.R. China), *The generalization of prime theorem*, MA 141

### 4. Algebraic Geometry

no ad-hoc talk

### 5. Differential Geometry and Global Analysis

**16:15** Christophe Pittet (?, Germany), *The isoperimetric profile of homogeneous Riemannian manifolds*, MA 301
**16:30** Zoran Rakic (Faculty of Mathematics, Yugoslavia), *On the 4-dimensional Kleinian non-isotropic Osserman manifolds*, MA 301
**16:45** Boris Serafimovich Kruglikov (Moscow, Russia), *Nijenhuis tensors and obstructions for pseudoholomorphic mapping constructions*, MA 301
**17:15** Weiqing Gu (Harvey Mudd College, USA), *The stable 4-dimensional geometry of the real Grassmann manifolds*, MA 144

### 6. Topology

**17:15** Mitrofan M. Choban (Cioban) (Tiraspol State University, Moldova), *Algebraical equivalences of topological spaces*, MA 141

### 7. Lie Groups and Lie Algebras

no ad-hoc talk

### 8. Analysis

**15:00** Elias Flytzanis (Athens University of Economics, Greece), *t. b. a.*, MA 314

### 9. Ordinary Differential Equations and Dynamical Systems

**14:00** Shunian Zhang (Dept. of Applied Math., Shanghai Jiaotong University, China), *t. b. a.*, MA 314

**10. Partial Differential Equations**

**16:15** Dzhuma Safarov (?, ?), *On the theory of nonclassical equations*, MA 144
**16:30** Nazirdjan Kamildjanovich Mamadaliev (?, ?), *The problem of Gellerstedt for a secondking equotion of the parabolic-hyperbolic type*, MA 144

**11. Mathematical Physics**

**17:15** Mersaid Aripov (Dept. Inf. & Appl. Programming, Usbekistan), *On splitting method for simulation of nonlinear processes*, MA 304
**17:30** Jagdish N. Pandey (Carleton University Dept. of Math. and Statistics, Canada), *The Schrödinger equation for the potential* $V(r) = r^2 + h/r^2 + \lambda r^2/(1 + gr^2)$, MA 304
**17:45** Adelina Georgescu with Holger Schwarz, Harry Vereecken, Uwe Jakel (Dept. of Mathematics Univ. of Pitesti, Romania), *Attracting properties of the initial conditions in a nonlinear diffusion problem*, MA 304

**12. Probability and Statistics**

**14:00** Roman M. Cherniha (Institute of Mathematics, Ukrainian Nat. Acad. Science, Ukraine), *Postersession: t. b. a.*, MA 144
**14:00** Tatjana Dudnikova (Moscow Institute of Steel and Alloys, Russia), *On Ergodicity and Statistical Stabilization in Wave Equations with Mixing*, MA 304
**14:15** Anatoly A. Naumov (NSTU, Russia), *Design of experiments and its regularization*, MA 304
**14:30** Mikhail Moklyachuk (Kyiv University Mechanics and Mathematics Faculty, Ukraine), *Game theory and convex optimization methods in robust estimation*, MA 304
**15:00** Jolanta K. Misiewicz (Institute of Mathematics Technical University of Wroclaw, Poland), *Pseudo-isotropic vectors and stochastic processes*, MA 141
**15:15** Shmygevskyy (?, ?), *on a generalization of Jackson's law for network in random environment*, MA 141

**13. Combinatorics**

**15:00** Christian Haase (MA 7-1 , TU-Berlin, Germany), *Crepant resolutions of toric l.c.i. singularities via unimodular triangulations*, MA 304
**15:15** Francisco Santos (Universidad de Cantabria Facultad de Ciencias, Spain), *Applications of the Cayley trick to triangulations of polytopes*, MA 304
**15:30** Günter M. Ziegler (TU Berlin, Germany), *Neighborly cubical polytopes*, MA 304

**14. Mathematical Aspects of Computer Science**

**14:00** Nikoloj P. Korneichuk (Ukrainian Acad. of Sci. Institute of Mathematics, Ukraine), *Information aspects in approximation Theory and complexity of recovery problems*, MA 141

**15. Numerical Analysis and Scientific Computing**

no ad-hoc talk

**16. Applications**

**16:15** Zhongling Xu (National Natural Science Foundation of China (NSFC), P. R. China), *Poster session*, Exhibition Area 1st Floor
**16:15** Dumitru Busneag (?, Romania), *Poster session: Valuations on Hilbert algebras*, Exhibition Area 1st Floor
**16:15** Justin Sawon (New College University of Oxford, Great Britain), *Poster session: The Rozansky-Witten invariants of hyperkähler manifolds*, Exhibition Area 1st Floor
**16:15** Gabriel V. Orman (Transylvania University of Brasov Dept. of Math. Analysis/Probability, Romania), *On limit theorems and some of their applications*, MA 304
**16:30** Holger Boche (Heinrich-Hertz-Institut Nachrichtentechnik, Germany), *t. b. a.*, MA 304
**16:45** Yunusi Mahmadyusuf (?, Tajikistan), *Nonlinear problems with functional initial conditions and its applications*, MA 304

### 17. Control Theory and Optimization

no ad-hoc talk

### 18. Teaching and Popularization of Mathematics

**15:00** Ahmad Shahvarani-Semnani (Mathematics Dept. Faculty of Mathematical Sciences, Iran), *t. b. a.*, MA 144
**15:15** Mohammad H. Pourkazemi (Ministry of Culture & Higher Education, Iran), *The impact of teaching maths on the success of the students of economics*, MA 144
**15:30** Askin Suat (?, ?), *Fakultativnuij kurs po kompiuternoi geometrii dlja isutschajuschich uglublennuju matematiku v schkolje*, MA 144
**17:15** Tatyana N. Baidyk (International Renaissance Foundation, Ukraine), *Neural Network Optimization with Genetic Algorithm*, MA 301
**17:45** Ivko M. Dimitric (Mathematics Dept., Penn State University, USA), *Poster session: Using elements of mathematics in teaching*, MA 301

### 19. History of Mathematics

no ad-hoc talks

## Miscellaneous Announcements

**Events and policies: Effects on Women in Mathematics:** (see program p. 28). Among the panelists will be: Claire Baribaud (EPFL Lausanne, and ETH Zürich, CH), Ljudmila Bordag (University of Magdeburg, Germany), Mary Glazman (University of Mexico), Dusa McDuff (SUNY Stony Brook, U.S.), Inna Yemelyanova (Nizhny Novgorod State University, Russia). The panel is organized for European Women in Mathematics and Association for Women in Mathematics by Christine Bessenrodt (Germany), Bettye Anne Case (U.S.), and Bhama Srinivasan (U.S.). It is followed by a film "Women and Mathematics across Cultures" directed by Marjatta Naatanen (Finland) for EWM.
*Time:* today, 19:30.
*Location:* H 104.

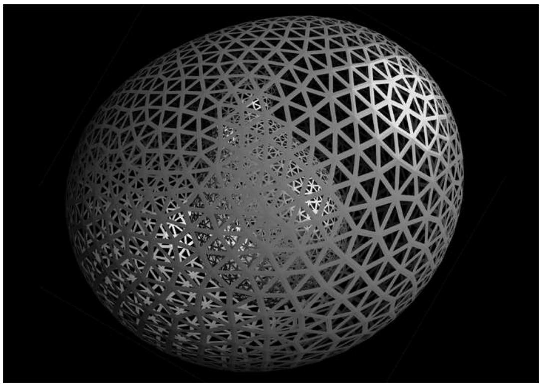
**Meeting of IMSI:** A meeting of the **International Mathematical Sciences Institutes (IMSI)** will be held on Sunday, August 23, 10:00–15:00
*Location*: Weierstraß Institute for Applied Analysis and Stochastics (WIAS), Room 405/6, Mohrenstraße 39, 10117 Berlin,
*Phone*: (030) 20377-587, Fax: (030)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

**Message Board:** If you expect a FAX or a message, please check the message board. The message board is situated in front of the conference office H 2036. (You might also wish to check the board if you don't expect a message.)

**Book signing session:** M. Aigner and G. Ziegler will sign their new book *Proofs From The Book* at the Springer booth today at 12:15.

**Long night of the museums:** Tomorrow night many museums will be open until 2 a.m. Combination tickets valid for all museums participating (e.g. Neue Nationalgalerie, Gemäldegalerie Kulturforum, Museum fr Völkerkunde, Pergamonmuseum, Hamburger Bahnhof and many others) are available at any one of these; price 18 DM.

**VideoMath Festival:** *N is a Number – a Portrait of Paul Erdős*. A man with no home and no job, Paul Erdős was the most prolific mathematician who ever lived. The wandering genius inspired generations of mathematicians throughout the world with his insightful approach and wry humour. The camera follows him, presenting his mathematical quest and its personal and philosophical dimensions.
*Time:* today, 18:00.
*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*.
*Time:* today, 20:00.
*Location:* Urania, Kleiststraße 13–14 (use subway U1, U2 or U15 to "Wittenbergplatz"); admission 6 DM.

**Academic Press Daily Book Drawing:** Prof. Sudhir R. Ghorpade, Dept. of Mathematics, Indian Institute of Technology, is the winner of the Thursday drawing for "Noncommutative Geometry" by Alain Connes.

**Childrens Room:** We have a meeting point for families with children in the 8th floor of the Math Building in room MA 850. You can stay, play or feed your children and maybe find some other children to play with. We will try to find some toys for the next days. Please notice that there is nobody who takes care of your children in MA 850 (apart from you). The nearest park with a playground is located in the court of the Math Building behind the Villa.

## Footloose Tours

*If you have booked a tour and you are not interested in it any more, please cancel since we have long waiting lists for almost all tours.*

*Please do not register electronically any more; instead, book tours directly at the Footloose counter in the main building of the Technical University.*

*Today bookable again:*

**7: 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 A and B: Friday, August 21; Tour C: Tuesday, August 27
*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.**

*Tomorrow:*

**8: "Fascism: The Pathos of Power"**
*Description:* Guided tour in English
*Date:* Saturday, August 22
*Meeting:* 09:15 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.**

**27: Walk through the park of Schloß Glienicke "Glienicke Park — the Prussian Arcady"; booked out and cannot be repeated**
*Description:* A tour of the beautifully landscaped park at the border of the lake-like Havel river, close to the town of Potsdam, and its historical buildings.

**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 outside the U-Bahnhof "Den-

newitzplatz" U1/U2/U4 at the memorial for the gay victims of the Nazi regime (**note time and location change**).
*Duration:* ca. 2 hours
*Fees:* None

*New tours:*
**New: 38: Of Wo∫Men and Mathematics: Authors and their Publications**
*Description:* Guided tour through the exhibition.
*Date:* Tour 38 B: Monday, August 24; Tour 38 C: Tuesday, August 25
*Meeting:* 14:00 at the Springer booth in the main building, Technical University
*Duration:* to be announced
*Fees:* to be announced (you should have a valid BVG ticket for public transportation)

**New: 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:* to be announced
*Fees:* to be announced (you should have a valid BVG ticket for public transportation)

*Available tours:*
The following tours are new or bookable again:

- 7: Path to the Jewish Berlin (today and Tuesday, Aug. 25)
- 8: Fascism: The Pathos of Power (tomorrow)
- 9: German Resistance (Monday, Aug. 24)
- 11: A Visit of the Humboldt University (Monday, Aug. 24, Tuesday, Aug. 25, and Wednesday, Aug. 26)
- 13: Cemetery tour (Monday, Aug. 24)
- 16: Picture Gallery (Wednesday, Aug. 26)
- 18: Guggenheim Exposition (Tuesday, Aug. 25)
- 23: Sightseeing by public transportation, from Bahnhof Zoo to Alexanderplatz (today and Monday, Aug. 24)
- 38: Guided tour through the exposition "Of Wo∫Men and Mathematics" (today and Monday, Aug. 24, and Tuesday, Aug. 25)
- 39: Visit of the former GDR prison in Hohenschönhausen (Monday, Aug. 24)

## Puzzles and Recreation

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

"Now, the next game," said Tweedledum, "has six rounds. Before each round, we go into the house where we have another pack of playing cards. These cards are colored orange and purple, rather than the usual red and black." "Now," he continued, "one or both of us will come of the house, and he (we) will make statements. Then you are to figure out who is who." "Just a minute," said Alice, "you have not told me the significance of the colors orange and purple. Does one of them signify lying and the other true-telling? And if so, which color means which?"
"Ah, that's the most interesting part of the game!" said Tweedledum. "You see, when I

carry an orange card, it means that I am telling the truth, and when I carry a purple card, it means that I am lying!"
"Contrariwise," said Tweedledee, "when I carry an orange card, it means I am lying, and when I carry a purple card, it means I am telling the truth!"

ROUND ONE Both brothers went into the house. Shortly after, just one emerges and said, "My card is purple."
Who was the speaker?

ROUND TWO Both brothers came out and made the following statements:
*First One:* I am Tweedledum.
*Second One:* I am Tweedledum.
*First One:* My brother's card is orange.
Which one is Tweedledum?

ROUND THREE On this round, the brothers made the following statements:
*First One:* I am Tweedledee.
*Second One:* I am Tweedledum.
*First One:* Our cards are of the same color.
Who is who?

ROUND FOUR Alice found this round particulary interesting.
*First One:* Our cards are both purple.
*Second One:* That is not true!
Who is who?

ROUND FIVE This time the brothers made the following statements:
*First One:* At least one of our cards is purple.
*Second One:* That is true.
*First One:* I am Tweedledum.
Who is who?

ROUND SIX Both brothers went into the house, and when they came out, they made the following statements:
*First One:* Our cards are of the same color.
*Second One:* Our cards are not of the same color.
Which one was telling the truth?

© *1982 by Raymond Smullyan*

**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
© ICM 1998
All rights reserved