



International Mathematical Union

**Presentation of the
IMU Awards**

ICM 2010 Opening Ceremony
Hyderabad, India
August 19, 2010



Presentation of the Fields Medal Winners 2010

by the Fields Medal Committee Chair
IMU President László Lovász, Hungary,

citations read by

IMU Secretary Martin Grötschel, Germany,

medals awarded by

the Honourable President of India

Shrimati Pratibha Patil

The Fields Medal Committee 2010



Chair

László Lovász, Eötvös Loránd University, Budapest, Hungary

Members

Corrado De Concini, Università di Roma "La Sapienza", Italy

Yakov Eliashberg, Stanford University, USA

Peter Hall, University of Melbourne, Australia

Timothy Gowers, University of Cambridge, UK

Ngaiming Mok, University of Hong Kong, Hong Kong

Stefan Müller, Inst. for Appl. Mathematics, U. of Bonn, Germany

Peter Sarnak, Institute for Advanced Study, Princeton, USA

Karen Uhlenbeck, University of Texas, Austin, USA

The Fields Medals



The Fields Medal was first awarded in 1936. It recognizes outstanding mathematical achievement for existing work and for the promise of future achievement.

A candidate's 40th birthday must not occur before January 1st of the year of the Congress at which the Fields Medals are awarded.

Fields Medal 2010



Elon Lindenstrauss

of Hebrew University, Jerusalem, Israel and
Princeton University, Princeton, NJ, USA

“For his results on measure rigidity in
ergodic theory, and their applications
to number theory.”



Fields Medal 2010



Ngô Bảo Châu

of Université Paris-Sud, Orsay, France

“For his proof of the Fundamental Lemma in the theory of automorphic forms through the introduction of new algebro-geometric methods.”



Fields Medal 2010



Stanislav Smirnov

Université de Genève, Switzerland

“For the proof of conformal invariance of percolation and the planar Ising model in statistical physics.”



Fields Medal 2010



Cédric Villani

Institut Henri Poincaré, Paris, France

“For his proofs of nonlinear Landau damping and convergence to equilibrium for the Boltzmann equation.”





International Mathematical Union

**Presentation of the Winner
Rolf Nevanlinna Prize 2010**

by the Nevanlinna Prize Committee Chair
Ravindran Kannan, India

Rolf Nevanlinna Prize Committee 2010



Chair

Ravindran Kannan, Microsoft Research Labs, India

Members

Stanley Osher, University of California, Los Angeles, USA

Olivier Pironneau, University of Paris VI, France

Madhu Sudan, MIT and Microsoft Research, USA

Emo Welzl, ETH Zürich, Switzerland

The Rolf Nevanlinna Prize



The Rolf Nevanlinna Prize is awarded, since 1982, for outstanding contributions in Mathematical Aspects of Information Sciences.

A candidate's 40th birthday must not occur before January 1st of the year of the Congress at which the Prize is awarded.

The Rolf Nevanlinna Prize 2010



Daniel Spielman

Yale University, New Haven, CT, USA

"For smoothed analysis of Linear Programming, algorithms for graph-based codes and applications of graph theory to Numerical Computing."



Check presented by Pertti Mattila representing the University of Helsinki and the Finish Academy of Science and Letters



International Mathematical Union

**Presentation of the Winner
Carl Friedrich Gauss Prize for
Applications of Mathematics 2010**

by the Gauss Prize Committee Chair
Wolfgang Dahmen, Germany

Gauss Prize Committee 2010



Chair

Wolfgang Dahmen, RWTH Aachen, Germany

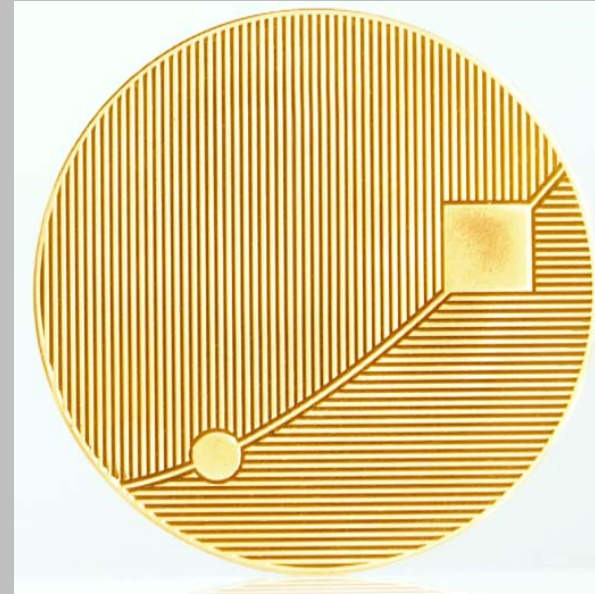
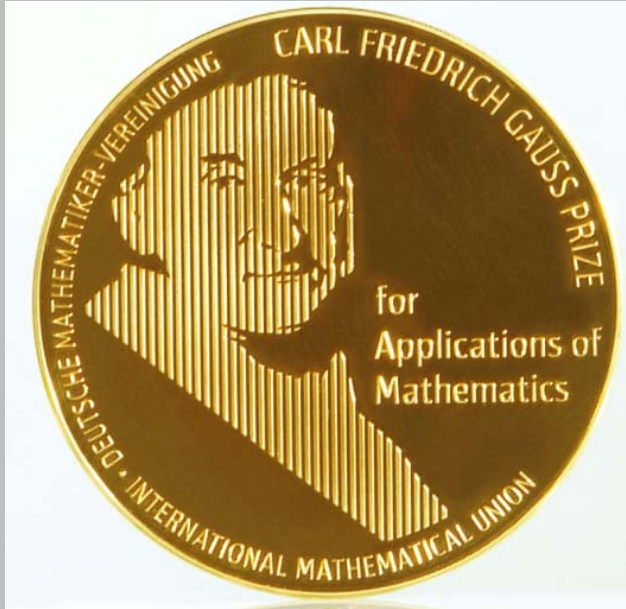
Members

Rolf Jeltsch, ETH Zürich, Switzerland

Servet Martinez Aguilera, Universidad de Chile, Chile

William R. Pulleyblank, IBM, USA

The Carl Friedrich Gauss Prize



designed by Jan Arnold

... is to be awarded for outstanding mathematical contributions with a significant and lasting impact on applications outside mathematics...

A mixed crowd

...across traditional borders...



Oberwolfach, May 1992, Courtesy of Oberwolfach Association

Carl Friedrich Gauss Prize 2010



IMU and DMV jointly award the
Gauss Prize for Applications of Mathematics to
Yves Meyer.

His foundational contributions, with a new **multiresolution paradigm** and **wavelet bases** as focal points, revolutionized **signal-and image processing**, opened new perspectives to **statistical estimation**, and led to optimal **preconditioners** in large scale numerical simulation.

Born: July 19, 1939

Affiliation: Professor Emeritus at École normale supérieure de Cachan

Check presented by Wolfgang Lück representing DMV.



Toutes nos félicitations !





International Mathematical Union

**Presentation of the Winner
Chern Medal Award 2010**

by the Chern Prize Committee Member
Robert Bryant, USA

Chern Medal Committee 2010



Chair

Phillip A. Griffiths, Institute for Advanced Study, Princeton, USA

Members

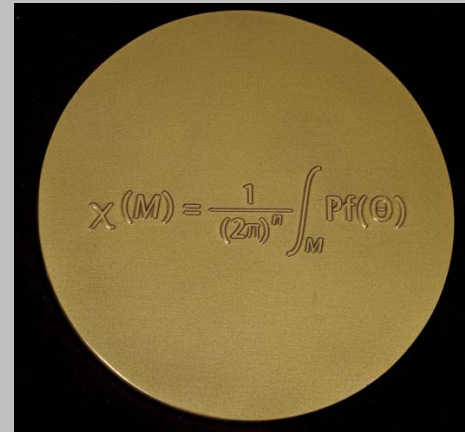
Robert Bryant, MSRI, Berkeley, USA

Gerd Faltings, Max Planck Inst. for Mathematics, Bonn, Germany

Fanghua Lin, Courant Institute, New York University, USA

Wendelin Werner, Université Paris-Sud 11, France

The Chern Medal



Professor Shiing-Shen Chern devoted his life to mathematics, both in active research and education, and in nurturing the field whenever the opportunity arose. He obtained fundamental results in the area of differential geometry and introduced many students to mathematical research.

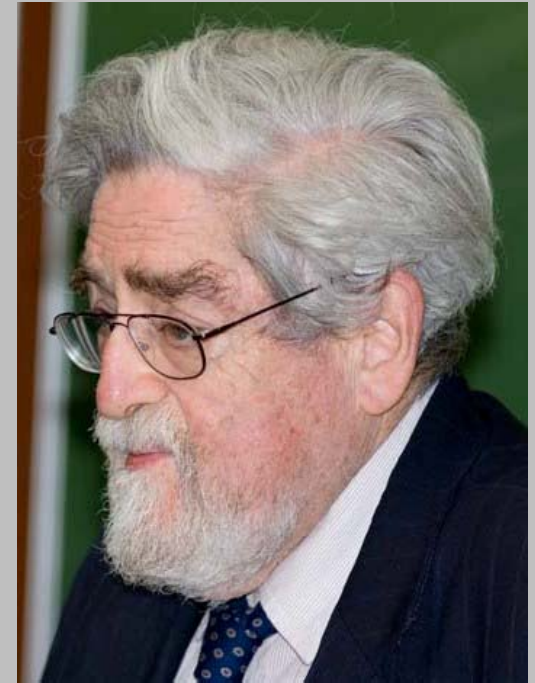
The Medal is to be awarded, this year for the first time, to an individual whose lifelong outstanding achievements in the field of mathematics warrant the highest level of recognition.

Louis Nirenberg



The first recipient of the Chern Medal, Louis Nirenberg, is the principal founder of the modern field of nonlinear elliptic equations, which occupies a central role across mathematics.

Nirenberg's broad and fundamental contributions to our field exemplify the qualities recognised by the Chern Medal.



Born: February 28, 1925

Affiliation: Courant Institute of the Mathematical Sciences New York, NY

Check presented by May Chu, S.S. Chern's daughter.