

International Congress of

Mathematicians

ICM 2010

Hyderabad, India

August 19 - 27, 2010

Plenary and Special Lectures

Plenary Lectures

Saturday, August 21, 2010

- 09:00-10:00** Hall 4
Artur Avila, IMPA, Rio de Janeiro, Brazil
Dynamics of renormalization operators
Chair: **E. Ghys**
- 10:15-11:15** Hall 4
Irit Dinur, Weizmann Institute of Science, Israel
Probabilistically checkable proofs and codes
Chair: **H. Lenstra**
- 11:30-12:30** Hall 4
Carlos Kenig, University of Chicago, USA
The global behaviour of solutions to critical nonlinear dispersive equations
Chair: **J. Ball**

Sunday, August 22, 2010

- 09:00-10:00** Hall 4
David Aldous, University of California, Berkeley, USA
Exchangeability and continuum limits of discrete random structures
Chair: **Z-M. Ma**
- 10:15-11:15** Hall 4
R. Parimala, Emory University, USA
Arithmetic of linear algebraic groups over two-dimensional fields
Chair: **S. Ramanan**

Tuesday, August 24, 2010

- 09:00-10:00** Hall 4
A. N. Parshin, Steklov Mathematical Institute, Russia
Representations of higher adelic groups and arithmetics
Chair: **M. S. Narasimhan**
- 10:15-11:15** Hall 4
Jean-Michel Coron, Université Pierre et Marie Curie, France
On the controllability of nonlinear partial differential equations
Chair: **L. Nirenberg**
- 11:30-12:30** Hall 4
Shige Peng, Shandong University, P. R. of China
Backward stochastic differential equations, nonlinear expectations and their applications
Chair: **S. R. S. Varadhan**

Wednesday, August 25, 2010

09:00-10:00 Hall 4

Stanley Osher, University of California, Los Angeles, USA
New algorithms in image science
Chair: **M. F. Wheeler**

10:15-11:15 Hall 4

Nicolai Reshetikhin, University of California, Berkeley, USA
Mathematics of quantum field theory
Chair: **H. Araki**

11:30-12:30 Hall 4

Claire Voisin, Institut de Mathématiques de Jussieu, France
On the cohomology of algebraic varieties
Chair: **V. B. Mehta**

Thursday, August 26, 2010

09:00-10:00 Hall 4

Thomas J. R. Hughes, University of Texas, Austin, USA
Isogeometric analysis
Chair: **R. Jeltsch**

10:15-11:15 Hall 4

Peter Jones, Yale University, USA
Eigenfunctions and coordinate systems on manifolds
Chair: **I. Daubechies**

11:30-12:30 Hall 4

Kim Plofker, Brown University, USA
Indian rules, Yavana rules: foreign identity and the transmission of mathematics
Chair: **Bill Casselman**

13:45-14:45 Hall 4

Hugh Woodin, University of California, Berkeley, USA
Strong axioms of infinity and the search for V
Chair: **J. Nešetřil**

Friday, August 27, 2010

09:00-10:00 Hall 4

Hillel Furstenberg, Hebrew University of Jerusalem, Israel
Ergodic structures and non-conventional ergodic theorems
Chair: **M. S. Raghunathan**

10:15-11:15 Hall 4

R. Balasubramanian, Institute of Mathematical Sciences, India
Highly composite
Chair: **J-M. Deshouillers**

11:30-12:30 Hall 4

Richard Schoen, Stanford University, USA
Riemannian manifolds of positive curvature
Chair: **M. de León**

Special Lectures

Thursday, August 19, 2010

16:45-17:45 Hall 4

Abel Lecture

S. R. S. Varadhan, Courant Institute of Mathematical Sciences, New York University, USA

Large Deviations

Chair: K. R. Parthasarathy

Friday, August 20, 2010

10:45-11:30 Hall 4

Lecture on the work of **L. Nirenberg**, the Chern Prize winner

Yanyan Li

Chair: L. Lovasz

11:45-12:30 Hall 4

Lecture on the work of **Y. Meyer**, the Gauss Prize winner

I. Daubechies

Chair: L. Lovasz

13:45-14:45 Hall 4

Special Lecture by a Fields Medallist

Stanislav Smirnov

Discrete complex analysis and probability

Chair: H. Kesten

Saturday, August 21, 2010

13:45-14:45 Hall 4

Special Lecture by the Nenvanlinna Prize Winner

Daniel Spielman

Algorithms, graph theory and linear equations in Laplacian matrices

Chair: Gil Kalai

Sunday, August 22, 2010

13:45-14:45 Hall 4

Special Lecture by a Fields Medallist

Ngo Bao Chau

Endoscopy of automorphic forms

Chair: J. Arthur

Tuesday, August 24, 2010

13:45-14:45 Hall 4

Special Lecture by a Fields Medallist

Cedric Villani

Interacting particle systems and Landau damping

Chair: E. Ghys

Wednesday, August 25, 2010

13:45-14:45

Hall 4

Special Lecture by a Fields Medallist

Elon Lindenstrauss

Equidistribution in homogeneous spaces and number theory

Chair: H. Furstenberg

Friday, August 27, 2010

13:45-14:45

Hall 4

Emmy Noether Lecture

Idun Reiten, NTNU, Norway

Cluster categories

Chair: C. Voisin