

Lezioni Leonardesche

1990

L. CAFFARELLI	<i>Sulla Geometria di Equazioni Ellittiche</i>	May 10
G.-C. ROTA	<i>Sguardo panoramico sulla teoria classica degli invarianti</i>	May 17
J. TITS	<i>Mostro e Moonshine": una Panoramica</i>	May 22
E. BOMBIERI	<i>Aritmetica e Geometria</i>	May 31
M. GROMOV	<i>Idea della Curvatura in Geometria Riemanniana</i>	June 14

1991

V.G. KAC	<i>Boson-Fermion Correspondence: Applications to Combinatorics And Soliton Equations</i>	June 6
P.J. HILTON	<i>The Birth of Homological Algebra</i>	June 27
V.I. ARNOLD	<i>Waves, Singularities and Platonics – Strange Unity in Mathematics and Nature</i>	October 1
F.E.P. HIRZEBUCH	<i>Manifolds, Characteristic Classes and Modular Forms</i>	October 10
J.K. MOSER	<i>On Stability in Dynamical Systems</i>	October 24

1992

R. PENROSE	<i>Magic Dodecahedra and the Mystery of Quantum Entanglement</i>	April 10
J.-L. LIONS	<i>Mathematics and Environment – Some Remarks</i>	April 30
Y.I. MANIN	<i>Analogies between Numbers and Functions</i>	June 5
L. NIRENBERG	<i>On the Maximum Principle</i>	June 25

1993

J. MILNOR	<i>Iterated Polynomial Maps</i>	May 20
M. ASCHBACHER	<i>Finite Simple Groups, Algebraic Topology and Geometric Combinatorics</i>	June 22
S. NOVIKOV	<i>Differential Geometry and Hydrodynamic Type Systems</i>	September 23
I. EKELAND	<i>The Symplectic World: Invariants and Topology</i>	October 11
L. SCHWARTZ	<i>Brownian Motion</i>	October 28

1994

P. D. LAX	<i>Disordered Motion Caused by Dispersion</i>	June 3
P. ERDÖS	<i>Some of my Favorite Problems and Theorems</i>	June 16
E. M. STEIN	<i>The Ergodic Theorem for Free Groups</i>	June 30
A. BOREL	<i>Group Representations as a Link between Mathematics and Physics</i>	July 7

1995

D. W. STROOK	<i>Perturbing Brownian Paths with an eye towards Riemannian Geometry</i>	June 14
E. I. ZELMANOV	<i>On the Burnside Problem</i>	June 27
P. CARTIER	<i>Feynman Path Integrals as a Challenge to Mathematicians</i>	October 12
I. M. GELFAND	<i>Some Problems in Geometry and Noncommutative Algebra</i>	October 17
D.P. RUELLE	<i>Functional Determinants Related to Dynamical Systems</i>	November 6

1996

N. KRYLOV	<i>Optimization Problems and Fully Nonlinear Elliptic Equations</i>	June 6
H. BREZIS	<i>How to Handle Infinite Energy: The Ginzburg-Landau Model</i>	June 11
A. SUSLIN	<i>Cohomology of Finite Group Schemes</i>	June 25
K. UHLENBECK	<i>Geometric Partial Differential Equations</i>	September 26

1997

D. MUMFORD	<i>Seeing as a Variational Problem – From da Vinci to Kanizsa</i>	May 13
P.-L. LIONS	<i>On Compressible Euler and Navier-Stokes Equations</i>	June 3
P. DIACONIS	<i>The Search for Randomness</i>	June 19
A. LUBOTZKY	<i>Property τ and its Applications in Combinatorics, Geometry and Group Theory</i>	September 24

1998

A. FRIEDMAN	<i>What is Industrial Mathematics?</i>	June 9
B. ECKMANN	<i>Linearization: Some Relations between Algebra, Topology and Analysis</i>	June 18
J. LINDENSTRAUSS	<i>Differentiability of Lipschitz Functions and Exceptional Sets</i>	October 8
P. SARNAK	<i>Zeros of Zeta Functions and Symmetry</i>	October 29
C. S. MORAWTZ	<i>Shock Waves and their Reflection</i>	November 12

1999

O. A. LADYZHENSKAYA	<i>On the Dynamics of Incompressible Fluids</i>	March 24
V. KLEE	<i>Shapes of the Future: Unsolved Problems From Intuitive Geometry</i>	May 13
Y. MEYER	<i>Oscillations, Vibrations, Time Frequency Analysis and the Virgo Problem</i>	October 7
A. DOLD	<i>Geometry of Universal Bundles</i>	October 2

2000

M. KONTSEVICH	<i>Geometry of the Associative Law</i>	May 9
A. J. MAJDA	<i>Mathematics and Atmosphere/Ocean Science</i>	May 30
J.-C. YACCOZ	<i>Stability of Dynamics in Phase Space and Parameter Space</i>	June 13
M. ARTIN	<i>Geometry of Noncommutative Algebraic Surfaces</i>	June 27
S. HILDEBRANDT	<i>Geometric Variational Problems</i>	October 3

2001

J.-P. BOURGUIGNON	<i>Kählerian Geometry, A Crossroad of Geometries</i>	May 21
A. J. WILES	<i>Fermat's Legacy</i>	June 19
M. ATIYAH	<i>Polyhedra in Geometry, Physics and Chemistry</i>	October 1
J. M. BALL	<i>Microgeometry and Phase Transitions</i>	October 30

2002

R. TEMAM	<i>Mathematical Problems in Meteorology and Oceanography</i>	April 8
E.H. LIEB	<i>Quantum Mechanics and the Stability of Matter</i>	June 10
E. CALABI	<i>Recent Results in Kähler Geometry</i>	June 18
B. MALGRANGE	<i>Differential Galois Theory: An Algebraic View on Differential Equations</i>	October 7

2003

D. ZAGIER	<i>New Aspects of Modular Forms</i>	May 19
J.B. SERRIN	<i>Dead Cores and Bursts for Singular Elliptic Equations</i>	June 17
D. CHRISTOUDOULOU	<i>Spacetime Singularities</i>	October 21
D. McDUFF	<i>New Directions in Symplectic Topology</i>	November 18

2004

F. TREVES	<i>New Marvels and mysteries in the Algebraic Theory of Completely Integrable Systems</i>	April 26
J. H. CONWAY	<i>The Generalized Schläfli Symbol</i>	May 31
L. LAFFORGUE	<i>Langlands' Programme and the Arthur-Selberg Trace Formula</i>	October 4
H. HOFER	<i>Holomorphic Curves in Symplectic Geometry and Dynamics</i>	October 25

2005

P. RABINOWITZ	<i>Towards an Aubry-Mather Theory for Partial Differential Equations</i>	June 20
D. KAZHDAN	<i>The Fourier Transform over the p-Adic Domain</i>	June 29
P. GRIFFITHS	<i>Hodge Theory in Algebraic Geometry</i>	October
L. FADDEEV	<i>History and Perspectives of quantum Groups</i>	November 7

2006

S-T. YAU	<i>Spacetime According to Physics and the Geometry behind it</i>	March 28
L.C. EVANS	<i>Game theoretic Interpretations of Nonlinear Partial Differential Equations</i>	May 23
Y. SINAI	<i>Universality and the Renormalization Group Method</i>	June 5
Y. CHOQUET-BRUHAT	<i>Open Problems in Mathematical General Relativity</i>	October 24

2007

G. FALTINGS	<i>Coverings of p-Adic Period Domains</i>	May 3
G. LUSZTIG	<i>Total Positivity in Lie Groups: Recent Developments</i>	May 28
S. KLAINERMAN	<i>Ill Posed Problems and Uniqueness of Solutions to Einstein Equations</i>	September 17
A. CONNES	<i>Noncommutative Geometry and Physics</i>	October 30

2008

G.TIAN	<i>Geometry and Analysis of low Dimensional Manifolds</i>	May 12
R. SCHOEN	<i>New Methods in the Study of Positive Curvature</i>	October 6
C. KENIG	<i>The Concentration-Compactness/Rigidity Method For Critical Nonlinear Dispersive and Wave Equations</i>	October 20
J. COATES	<i>Elliptic Curves and Iwasawa Theory</i>	November 24

2009

S. POHOŽAEV	<i>The Critical nonlinearities in PDE</i>	May 12
G. MARGULIS	<i>Homogeneous Dynamics and Number Theory</i>	June 8
D. SULLIVAN	<i>Topology and Geometry of the Space of Closed Curves on a Manifold</i>	September 8
N. TRUDINGER	<i>Optimal Transportation in the 21st Century</i>	September 29

2010

C. FEFFERMAN	<i>Extension of Functions and Interpolation of Data</i>	May 3
J.-M. CORON	<i>Control of Partial Differential Equations and Nonlinearity</i>	June 8
S.-Y. A. CHANG	<i>Q-Curvature: Analytic and Geometric Aspects</i>	October 4
J.G. THOMPSON	<i>SL(2,Z) and Dirichlet Series</i>	October 26

2011

J.L. VAZQUEZ	<i>Nonlinear Diffusion, from Porous Media to Fractional Diffusion. Evolutions, Free Boundaries and Asymptotics</i>	June 7
J. BOURGAIN	<i>Expansion in Linear Groups, Spectral Gaps and Applications</i>	June 21
J.B. KELLER	<i>The Mathematics of Sports and Games</i>	September 20
C.W. CURTIS	<i>New Directions in representation Theory</i>	October 17

2012

W. FULTON	<i>Degeneracy Loci and Equivariant Cohomology</i>	May 16
S.R.S. VARADHAN	<i>Large Deviation Theory. A General Survey with some Recent Unusual Applications</i>	June 13
R. DeVORE	<i>Does it Pay to be Greedy?</i>	July 3
T. SPENCER	<i>Symmetry, Statistical Mechanics and Random Matrices</i>	October 15

2013

J. FRÖLICH	<i>The Problem of Dynamics in Quantum Theory</i>	May 27
S. SMIRNOV	<i>2D Lattice Models and Conformal Invariance</i>	September 23
E. WITTEN	<i>A New Look at the Jones Polynomial of a Knot</i>	October 14
N.B. CHÃO	<i>Arithmetic of some Integrable System</i>	October 28

2014

C. VOISIN	<i>Birational Invariants and Applications to Rationality Problems</i>	May 13
Y. ELIASHBERG	<i>Crossroads of Symplectic Rigidity and Flexibility</i>	September 18
G. HUISKEN	<i>Heat Diffusion in Geometry</i>	September 29
R.V. KOHN	<i>A Variational Perspective on Wrinkling Patterns In Thin Elastic Sheets</i>	October 13

2015

A. OKOUNKOV	<i>Boxcounting</i>	June 8
C. McMULLEN	<i>Billiards and Moduli Spaces</i>	June 30
M. HAIRER	<i>Taming Infinities</i>	October 5
M. del PINO	<i>The Allen-Cahn Equation and Minimal Surfaces</i>	November 23

2016

E. LINDENSTRAUSS	<i>Diagonal Flows, Joinings and Arithmetic</i>	July 11
E. SZEMERÉDI	<i>On the Fundamental Theorem of Freiman</i>	October 3
A. FIGALLI	<i>Convergence to Equilibrium via Quantitative Stability</i>	November 7

2017

W. WERNER	<i>Random Cracks in Space</i>	March 27
F. MORGAN	<i>The Isoperimetric Problem</i>	May 25
F. OTTO	<i>Randomness in Partial Differential Equations</i>	November 20

2018

B. SIMON	<i>Spectral Theory, Sum rules and Large Deviations</i>	May 28
T. TAO	<i>Some Recent Developments in Analytic Number Theory</i>	June 8
S. MORI	<i>Birational Classification of Algebraic Varieties</i>	November 26

2019

J. BARROW	<i>One hundred Years of Universes</i>	October 29
P.-L. LIONS	<i>On Mean Field Games</i>	October 29
R. PENROSE	<i>On the Power of Geometric Illustration in Mathematics and Science</i>	October 29