

FOREWORD

The Eighth Congress of Romanian Mathematicians took place in Iași, between June 26th and July 1st, 2015. It continued an old tradition of holding congresses of Romanian mathematicians largely open to an international participation. This edition of the congress was attended by over 450 people from 23 countries. The previous seven congresses were organized in Cluj (1929), Turnu Severin (1932), Bucharest (1945, 1956), Pitești (2003), Bucharest (2007), and Brașov (2015). It is expected that future editions of the congress will continue a periodicity of four years.

The Eighth Congress of Romanian Mathematicians was organized by the Section of Mathematical Sciences of the Romanian Academy, the Romanian Mathematical Society, the “Simion Stoilow” Institute of Mathematics of the Romanian Academy, the Faculty of Mathematics of “Alexandru Ioan Cuza” University of Iași, the Faculty of Mathematics and Computer Science of the University of Bucharest, and the “Octav Mayer” Institute of Mathematics of the Romanian Academy, Iași.

The congress worked in the following parallel sections, which included several special sessions:

1. Algebra and Number Theory
2. Algebraic, Complex and Differential Geometry and Topology
 - Special session: Geometry and Topology of differentiable manifolds and algebraic varieties
3. Real and Complex Analysis, Potential Theory
4. Ordinary and Partial Differential Equations, Variational Methods, Optimal Control
5. Functional Analysis, Operator Theory and Operator Algebras, Mathematical Physics
 - Special session: Spectral Theory and Applications in Mathematical Physics
 - Special session: Dynamical Systems and Ergodic Theory
6. Probability, Stochastic Analysis, and Mathematical Statistics
7. Mechanics, Numerical Analysis, Mathematical Models in Sciences

- Special session: Mathematical Modeling of some Medical and Biological Processes
- Special session: Mathematical Models in Astronomy
- 8. Theoretical Computer Science, Operations Research and Mathematical Programming
- Special session: Logic in Computer Science
- 9. History and Philosophy of Mathematics

This volume contains survey articles written by invited speakers to the congress, from a wide area of mathematical topics, covered by the meeting.

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