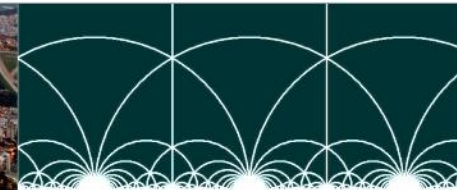


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## International Conference in Number Theory and Physics

IMPA, Rio de Janeiro, Brazil  
June 15-26, 2015

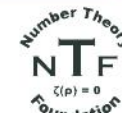
We hereby certify that, **Alex Kontorovich, Rutgers University**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: “**Applications of Thin Orbits**”

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

IMPA, Rio de Janeiro, Brazil  
June 15-26, 2015

We hereby certify that, **Alina Bucur**, **University of California, San Diego**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: **“The distribution of points on cyclic trigonal curves over finite fields”**

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

IMPA, Rio de Janeiro, Brazil  
June 15-26, 2015

We hereby certify that, **Bruce Berndt**, **University of Illinois at Urbana-Champaign**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: “**Analysis and Analytic Number Theory in Ramanujan's Lost Notebook**”

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

IMPA, Rio de Janeiro, Brazil  
June 15-26, 2015

We hereby certify that, **Christopher Hughes, University of York**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: **“Zeros of linear combinations of L-functions”**

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

IMPA, Rio de Janeiro, Brazil  
June 15-26, 2015

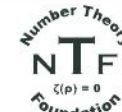
We hereby certify that, **Christopher Sinclair, University of Oregon**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: **“Polynomials with bounded Mahler measure and 2D electrostatics”**

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

IMPA, Rio de Janeiro, Brazil  
June 15-26, 2015

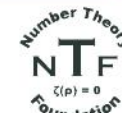
We hereby certify that, **David Broadhurst, Open University**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: **“Polylogarithms of the sixth root of unity in quantum field theory”**

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

IMPA, Rio de Janeiro, Brazil  
June 15-26, 2015

We hereby certify that, ***Emanuel Gilbert Scheidegger***, **Universitat Freiburg - Freiburg - Alemanha**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: **“Topological Strings and Modular Forms”**

Rio de Janeiro, June 26, 2015.

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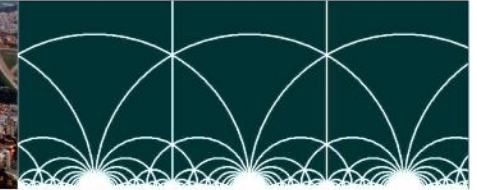
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## International Conference in Number Theory and Physics

IMPA, Rio de Janeiro, Brazil  
June 15-26, 2015

We hereby certify that, **Fernando Rodriguez Villegas**, **International Center for Theoretical and Physics**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: “**The geometry of character varieties**”

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

IMPA, Rio de Janeiro, Brazil  
June 15-26, 2015

We hereby certify that, **German Sierra, Consejo Superior de Investigaciones Cientificas**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: “**Prime numbers and Riemann zeros go Quantum**”

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

IMPA, Rio de Janeiro, Brazil  
June 15-26, 2015

We hereby certify that, **Gunther Cornelissen, University Utrecht**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: **“Reconstruction of walks in graphs”**

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

IMPA, Rio de Janeiro, Brazil  
June 15-26, 2015

We hereby certify that, **Herman Verlinde**, **Princeton University**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: “**Conformal Bootstrap and Gravitational Scattering**”

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

IMPA, Rio de Janeiro, Brazil  
June 15-26, 2015

We hereby certify that, **Ingmar Saberi, California Institute of Technology**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: “**Minicourse: The Physics and Number Theory of the A-Polynomial**”

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

IMPA, Rio de Janeiro, Brazil  
June 15-26, 2015

We hereby certify that, **Jeffrey C Lagarias, University of Michigan**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: **“lecture not settled yet- dates of stay not settled yet either-”**

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

IMPA, Rio de Janeiro, Brazil  
June 15-26, 2015

We hereby certify that, **Jeffrey Hoffstein, Brown University**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: “**Second Moments of  $GL(2)$  L-series**”

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

IMPA, Rio de Janeiro, Brazil  
June 15-26, 2015

We hereby certify that, **John Brian Conrey, American Institute of Mathematics**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: **“Minicurse: Random Matrix Theory and Statistics of families of L-functions / Statistics of L-functions”**

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

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June 15-26, 2015

We hereby certify that, **John Duncan, Case Western Reserve University**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: “**Umbral Moonshine Modules**”

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

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June 15-26, 2015

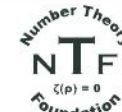
We hereby certify that, **Jon Keating, University of Bristol**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: **“Minicourse: L-functions and Random Matrix Theory / Arithmetic Statistics in Function Fields”**

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

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June 15-26, 2015

We hereby certify that, **Jordan Ellenberg, University of Wisconsin - Madison**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: “**Geometry, monodromy, and point-counting**”

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

IMPA, Rio de Janeiro, Brazil  
June 15-26, 2015

We hereby certify that, **Kiran S. Kedlaya, University of California, San Diego**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: **“Recent progress in computing zeta functions of varieties”**

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

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June 15-26, 2015

We hereby certify that, **Lior Bary-Soroker, Telaviv Univ.**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: “**Number Theory in Function Fields**”

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

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June 15-26, 2015

We hereby certify that, **Mark Srednicki, University of California Santa Barbara**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: **“The Riemann Hamiltonian and the idele class group”**

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

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June 15-26, 2015

We hereby certify that, **Micah B. Milinovich**, **University of Mississippi**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: “**Fourier Analysis and the zeros of the Riemann zeta-function**”

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

IMPA, Rio de Janeiro, Brazil  
June 15-26, 2015

We hereby certify that, **Michael Berry, University of Bristol**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: “**Seeing and hearing the Riemann zeros**”

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

IMPA, Rio de Janeiro, Brazil  
June 15-26, 2015

We hereby certify that, **Michael Rosen, Brown University**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: “**Kronecker-Weber in function fields**”

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

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June 15-26, 2015

We hereby certify that, **Michael Rubinstein, University of Waterloo**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: **“Moments of zeta functions in the hyperelliptic ensemble”**

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

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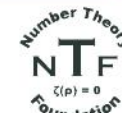
We hereby certify that, **Nicolas Templier, Cornell University**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: “**Asymptotics of Whittaker functions**”

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

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June 15-26, 2015

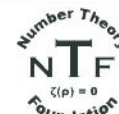
We hereby certify that, **Nina Snaithe Mezzadri**, **University of Bristol**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: “**Random matrix theory and elliptic curves**”

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

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June 15-26, 2015

We hereby certify that, **Philip Candelas, Oxford University**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: “**A Physicists Take on the Conjecture of Birch and Swinnerton-Dyer**”

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

IMPA, Rio de Janeiro, Brazil  
June 15-26, 2015

We hereby certify that, **Raimar Wolkenhaar, Universität Münster**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: “**Exact solution of a four-dimensional quantum field theory**”

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

IMPA, Rio de Janeiro, Brazil  
June 15-26, 2015

We hereby certify that, **Sameer Murthy, King's College London**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: **“Minicurse: Quantum Black Holes, Modular Forms and Mock Modular Forms”**

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

IMPA, Rio de Janeiro, Brazil  
June 15-26, 2015

We hereby certify that, **Solomon Friedberg, Boston College**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: “**Higher Theta Functions**”

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

IMPA, Rio de Janeiro, Brazil  
June 15-26, 2015

We hereby certify that, **Steve Gonek, University of Rochester**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: **“Minicourse: A Motivated Introduction to the Riemann Zeta-Function / Large values of the zeta-function at critical points”**

Rio de Janeiro, June 26, 2015.

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## International Conference in Number Theory and Physics

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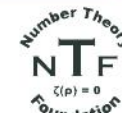
We hereby certify that, **Xenia de la Ossa, Oxford University**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: “**Minicurse: An interpretation of the Birch Swinnerton-Dyer conjecture**”

Rio de Janeiro, June 26, 2015.

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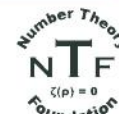
We hereby certify that, **Yuri Tschinkel, New York University**, participated in the International Conference in Number Theory and Physics, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from June 15 to 26, 2015 and presented the following work: “**Height zeta functions**”

Rio de Janeiro, June 26, 2015.

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