

a conference in honour of Victor Kac



CERTIFICATE

IMPA, Rio de Janeiro, Brazil June 24th to 28th, 2013

We hereby certify that, *Alberto De Sole*, Universita` di Roma 1, participated in the Symmetries in Mathematics and Physics II, held at Instituto Nacional de Matemática Pura e Aplicada - IMPA – Rio de Janeiro, from June 24 to 28, 2013 and presented the following work: An algebraic approach to the theory of integrable systems.

Rio de Janeiro, June 28, 2013.











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We hereby certify that, *Alexander Braverman*, **Brown University**, participated in the Symmetries in Mathematics and Physics II, held at Instituto Nacional de Matemática Pura e Aplicada - IMPA – Rio de Janeiro, from June 24 to 28, 2013 and presented the following work: **Instantons and W-algebras.**

Rio de Janeiro, June 28, 2013.











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IMPA, Rio de Janeiro, Brazil June 24th to 28th, 2013

We hereby certify that, *Andrei Okounkov*, Columbia University, participated in the Symmetries in Mathematics and Physics II, held at Instituto Nacional de Matemática Pura e Aplicada - IMPA – Rio de Janeiro, from June 24 to 28, 2013 and presented the following work: **Some interesting Lie Algebras.**

Rio de Janeiro, June 28, 2013.



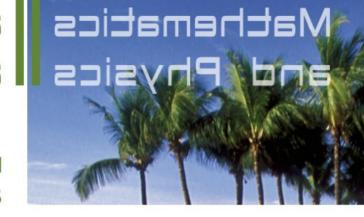








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We hereby certify that, *Bojko Bakalov*, **North Carolina State University**, participated in the Symmetries in Mathematics and Physics II, held at Instituto Nacional de Matemática Pura e Aplicada - IMPA – Rio de Janeiro, from June 24 to 28, 2013 and presented the following work: **Kac-Wakimoto hierarchies and W-constraints.**

Rio de Janeiro, June 28, 2013.











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We hereby certify that, *Edward Frenkel*, University of California at Berkeley, participated in the Symmetries in Mathematics and Physics II, held at Instituto Nacional de Matemática Pura e Aplicada - IMPA – Rio de Janeiro, from June 24 to 28, 2013 and presented the following work: **Baxter relations and polynomiality of transfermatrices.**

Rio de Janeiro, June 28, 2013.

Reimundo Heluani Organizing Committee









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We hereby certify that, *Efim Zelmanov*, University of California, San Diego, participated in the Symmetries in Mathematics and Physics II, held at Instituto Nacional de Matemática Pura e Aplicada - IMPA – Rio de Janeiro, from June 24 to 28, 2013 and presented the following work: **Identities in p- adic groups.**

Rio de Janeiro, June 28, 2013.











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We hereby certify that, *Ivan Shestakov*, Instituto de Matemática e Estatística, participated in the Symmetries in Mathematics and Physics II, held at Instituto Nacional de Matemática Pura e Aplicada - IMPA – Rio de Janeiro, from June 24 to 28, 2013 and presented the following work: **Non-associative Lie Theory.**

Rio de Janeiro, June 28, 2013.



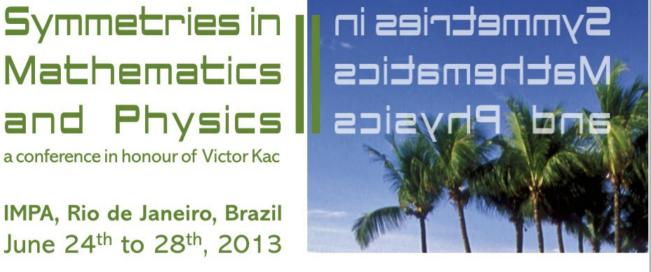








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We hereby certify that, *Maria Gorelik*, Weizmann Institute of Science, participated in the Symmetries in Mathematics and Physics II, held at Instituto Nacional de Matemática Pura e Aplicada - IMPA – Rio de Janeiro, from June 24 to 28, 2013 and presented the following work: On the Kac-Wakimoto formulas for admissible modules...

Rio de Janeiro, June 28, 2013.

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We hereby certify that, *Michèle Vergne*, Institut Mathématique de Jussieu, participated in the Symmetries in Mathematics and Physics II, held at Instituto Nacional de Matemática Pura e Aplicada - IMPA – Rio de Janeiro, from June 24 to 28, 2013 and presented the following work: **Dahmen-Micchelli polynomials and equivariant K-theory.**

Rio de Janeiro, June 28, 2013.

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We hereby certify that, *Minoru Wakimoto*, Kyushu, participated in the Symmetries in Mathematics and Physics II, held at Instituto Nacional de Matemática Pura e Aplicada - IMPA – Rio de Janeiro, from June 24 to 28, 2013 and presented the following work: Mock modular representations of affine Lie superalgebras of rank 2.

Rio de Janeiro, June 28, 2013.











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We hereby certify that, *Nathan Berkovits*, Instituto de Física Teórica, participated in the Symmetries in Mathematics and Physics II, held at Instituto Nacional de Matemática Pura e Aplicada - IMPA – Rio de Janeiro, from June 24 to 28, 2013 and presented the following work: **Twisting the superstring.**

Rio de Janeiro, June 28, 2013.











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IMPA, Rio de Janeiro, Brazil June 24th to 28th, 2013

We hereby certify that, *Reimundo Heluani*, Instituto de Matematica Pura e Aplicada, participated in the Symmetries in Mathematics and Physics II, held at Instituto Nacional de Matemática Pura e Aplicada - IMPA – Rio de Janeiro, from June 24 to 28, 2013 and presented the following work: **Mathiew's Moonshine.**

Rio de Janeiro, June 28, 2013.











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We hereby certify that, *Roberto Longo*, **Universita di Roma Tor Vergata**, participated in the Symmetries in Mathematics and Physics II, held at Instituto Nacional de Matemática Pura e Aplicada - IMPA – Rio de Janeiro, from June 24 to 28, 2013 and presented the following work: **Baxter relations and polynomiality of transfermatrices.**

Rio de Janeiro, June 28, 2013.

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We hereby certify that, **Shun-Jen Cheng**, **Academia Sinica**, participated in the Symmetries in Mathematics and Physics II, held at Instituto Nacional de Matemática Pura e Aplicada - IMPA – Rio de Janeiro, from June 24 to 28, 2013 and presented the following work: Irreducible characters of the general linear Lie superalgebras.

Rio de Janeiro, June 28, 2013.











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We hereby certify that, *Tomoyuki Arakawa*, Kyoto University, participated in the Symmetries in Mathematics and Physics II, held at Instituto Nacional de Matemática Pura e Aplicada - IMPA – Rio de Janeiro, from June 24 to 28, 2013 and presented the following work: Affine W-algebras and Vinberg's problem for centralizers.

Rio de Janeiro, June 28, 2013.











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We hereby certify that, *Vladimir Sokolov*, Landau Institute for Theoretical Physics, participated in the Symmetries in Mathematics and Physics II, held at Instituto Nacional de Matemática Pura e Aplicada - IMPA – Rio de Janeiro, from June 24 to 28, 2013 and presented the following work: **Integrable differential equations with matrix variables.**

Rio de Janeiro, June 28, 2013.







