



Symmetries in Mathematics and Physics

a conference in honour of Victor Kac

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



CERTIFICATE

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.

Reimundo Heluani
Organizing Committee

Support



An Activity of





Symmetries in Mathematics and Physics

a conference in honour of Victor Kac

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



CERTIFICATE

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.

Reimundo Heluani
Organizing Committee

Support



An Activity of





Symmetries in Mathematics and Physics

a conference in honour of Victor Kac

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



CERTIFICATE

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.

Reimundo Heluani
Organizing Committee

Support



An Activity of





Symmetries in Mathematics and Physics

a conference in honour of Victor Kac

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



CERTIFICATE

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.

Reimundo Heluani
Organizing Committee

Support



An Activity of





Symmetries in Mathematics and Physics

a conference in honour of Victor Kac

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



CERTIFICATE

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 transfer-matrices.**

Rio de Janeiro, June 28, 2013.

Reimundo Heluani
Organizing Committee

Support



An Activity of





Symmetries in Mathematics and Physics

a conference in honour of Victor Kac

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



CERTIFICATE

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.

Reimundo Heluani
Organizing Committee

Support



An Activity of





Symmetries in Mathematics and Physics

a conference in honour of Victor Kac

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



CERTIFICATE

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.

Reimundo Heluani
Organizing Committee

Support



An Activity of





Symmetries in Mathematics and Physics

a conference in honour of Victor Kac

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



CERTIFICATE

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.

Reimundo Heluani
Organizing Committee

Support



An Activity of





Symmetries in Mathematics and Physics

a conference in honour of Victor Kac

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



CERTIFICATE

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.

Reimundo Heluani
Organizing Committee

Support



An Activity of





Symmetries in Mathematics and Physics

a conference in honour of Victor Kac

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



CERTIFICATE

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.

Reimundo Heluani
Organizing Committee

Support



An Activity of





Symmetries in Mathematics and Physics

a conference in honour of Victor Kac

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



CERTIFICATE

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.

Reimundo Heluani
Organizing Committee

Support



An Activity of





Symmetries in Mathematics and Physics

a conference in honour of Victor Kac

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



CERTIFICATE

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.

Reimundo Heluani
Organizing Committee

Support



An Activity of





Symmetries in Mathematics and Physics

a conference in honour of Victor Kac

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



CERTIFICATE

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 transfer-matrices.**

Rio de Janeiro, June 28, 2013.

Reimundo Heluani
Organizing Committee

Support



An Activity of





Symmetries in Mathematics and Physics

a conference in honour of Victor Kac

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



CERTIFICATE

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.

Reimundo Heluani
Organizing Committee

Support



An Activity of





Symmetries in Mathematics and Physics

a conference in honour of Victor Kac

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



CERTIFICATE

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.

Reimundo Heluani
Organizing Committee

Support



An Activity of





Symmetries in Mathematics and Physics

a conference in honour of Victor Kac

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



CERTIFICATE

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.

Reimundo Heluani
Organizing Committee

Support



An Activity of

