



IMPA, Rio de Janeiro, Brazil
August 13th to 17th, 2012

Dedicated to Steven Kleiman and Aron Simis
on the occasion of their 70th birthdays

12th ALGA Meeting

CERTIFICATE

We hereby certify that, **Anthony Iarrobino - Northeastern University, Boston**, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work: **"When do two nilpotent matrices commute?"**.

Rio de Janeiro, August 17, 2012.

Eduardo Esteves

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We hereby certify that, **Anurag K. Singh - University of Utah**, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work: "**Local cohomology supported at determinantal ideals**".

Rio de Janeiro, August 17, 2012.

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We hereby certify that, **Arnaldo Leite Pinto Garcia** - Instituto de Matematica Pura e Aplicadao, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work: **"On towers over finite fields and Ihara's quantity"**.

Rio de Janeiro, August 17, 2012.

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We hereby certify that, **Aryampilly Jayanthan Parameswaran** - **Tata Institute of Fundamental Researcho**, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work: **"Picard bundles and Brill-Noether loci in the compactified jacobian of a nodal curve"**.

Rio de Janeiro, August 17, 2012.

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We hereby certify that, **Claudia Polini - University Notre Dameo**, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work: "**Rees algebras and Singularities**".

Rio de Janeiro, August 17, 2012.

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We hereby certify that, **Sandor Kovacs - University of Washington**, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work: "**Rational pairs and thrifty resolutions**".

Rio de Janeiro, August 17, 2012.

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We hereby certify that, **Daniel R. Grayson** - **University of Illinois**, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work:
"Computations in intersection theory".

Rio de Janeiro, August 17, 2012.

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We hereby certify that, **Gary Kennedy - Ohio State University**, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work: "**Milnor Fibers Associated to Quasi-Ordinary Surfaces**".

Rio de Janeiro, August 17, 2012.

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We hereby certify that, **Hajime Kaji - Waseda University**, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work: "**A tangential trisecant lemma**".

Rio de Janeiro, August 17, 2012.

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We hereby certify that, **Ilya Tyomkin - Ben Gurion University**, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work: "**Zariski's theorem via tropical geometry**".

Rio de Janeiro, August 17, 2012.

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We hereby certify that, **Israel Vainsencher - Universidade Federal de Minas Gerais**, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work: "**Degrees of Noether-Lefschetz loci**".

Rio de Janeiro, August 17, 2012.

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We hereby certify that, **Jugal Verma - Indian Institute of Technology Bombay**, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work: "**Local Cohomology of bigraded Rees algebras and normal Hilbert polynomials**".

Rio de Janeiro, August 17, 2012.

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We hereby certify that, **Keiichi Watanabe - Nihon University**, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work: "**Ulrich Ideals and Modules, II**".

Rio de Janeiro, August 17, 2012.

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We hereby certify that, **Lorenzo Robbiano - Università Degli Studi di Genova**, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work: "**Detecting Hidden Images Using Algebraic Schemes**".

Rio de Janeiro, August 17, 2012.

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We hereby certify that, **Lothar Goettsche** - **International Center for Theoretical and Physics**, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work: "**Refined curve counting on surfaces**".

Rio de Janeiro, August 17, 2012.

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We hereby certify that, **Luc Illusie - Université Paris - Sudo**, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work: "**Actions of algebraic groups and mod I étale equivariant cohomology algebras: Quillen's theory revisited**".

Rio de Janeiro, August 17, 2012.

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We hereby certify that, **Philippe Gimenez - Universidad de Valladolid**, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work: **"On the multigraded Betti numbers of an edge ideal"**.

Rio de Janeiro, August 17, 2012.

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We hereby certify that, **Sebastian Xambó - Universitat Politècnica de Catalunya**, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work: "**Algebra and Algebraic Geometry in Spain**".

Rio de Janeiro, August 17, 2012.

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We hereby certify that, **Shiro Goto - Meiji University**, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work: "**Ulrich ideals and modules , I**".

Rio de Janeiro, August 17, 2012.

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We hereby certify that, **Susan Jane Colley - Oberlin College**, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work: "**Combinatorial Determination of Severi Degrees**".

Rio de Janeiro, August 17, 2012.

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We hereby certify that, **Terence Gaffney - Northeastern University, Boston, Usao**, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work: **"Connections between Commutative Algebra and Singularities Through the Lens of bi-Lipschitz Equivalence"**.

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We hereby certify that, **Trygve Johnsen - University of Tromsø**, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work: "**Codes and matroid structures**".

Rio de Janeiro, August 17, 2012.

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We hereby certify that, **Vijaylaxmi Trivedi - Tata Institute of Fundamental Research**, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work: **"Hilbert-Kunz multiplicity and Hilbert-Kunz slope"**.

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We hereby certify that, **Vikraman Balaji - Chennai Mathematical Institute**, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work: "On holonomy and restriction theorems for stable bundles on projective varieties".

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We hereby certify that, **Vivek Shende** - **Massachusetts Institute of Technology**, participated in the 12th ALGA Meeting - Dedicated to Steven Kleiman and Aron Simis on the occasion of their 70th birthdays held at IMPA, Rio de Janeiro - RJ, from August 13 to 17, 2012 and presented the following work: "**Counting nodal curves on surfaces**".

Rio de Janeiro, August 17, 2012.

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