

June 17-21, 2013 - SISSA

Hilbert schemes of points are a traditional field of interest for algebraic geometers. Work by Nakajima and others established a relation between their geometry and the representation theory of Heisenberg-Clifford algebras.

More recent research connected Hilbert schemes with other infinite-dimensional algebras, such as Cherednik algebras, quantum Heisenberg algebras, Kac-Moody algebras, and so on. This conference aimed at providing an updated survey of the state of the art in this area of research in its various aspects.

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### Topics:

- categorification of the (quantized) Heisenberg algebra
- Cherednik algebras, W-algebras
- Ding-Iohara algebras, shuffle algebras
- moduli spaces of instantons and framed sheaves
- instanton counting, Alday-Gaiotto-Tachikawa conjecture
- instanton counting with surface operators, moduli spaces of parabolic framed sheaves
- moduli spaces of quiver representations, wall-crossing formulas

### Speakers:

**Sabin Cautis** (University of Southern California), **Duiliu Emanuel Diaconescu** (Rutgers University),

**hael Finkelberg**

(IMU, IITP and State University High School of Economics, Moscow),

**Mic**

**Iain Gordon**

(University of Edinburgh),

**Lothar Göttsche**

(ICTP, Trieste),

**Martijn Kool**

(Imperial College, London),

**Marcos Jardim**

(Universidade Estadual de Campinas),

**Andrei Negut**

(Harvard University),

**Jørgen Vold Rennemo**

(Imperial College, London),

**Leonid Rybnikov**

(IITP and State University High School of Economics, Moscow),

**Alistair Savage**

(University of Ottawa)

**Committees:**

Scientific Committee: Peter Newstead (Chair), Usha Bhosle, Steven Bradlow, Leticia Brambila-Paz, Ugo Bruzzo, Carlos Florentino, Oscar Garcia-Prada, Peter Gothen, Daniel Hernandez Ruiperez, Alastair King, Herbert Lange, Antony Maciocia, Ignasi Mundet i Riera, Christian Pauly, Alexander Schmitt, Andras Szenes.

Organizing Committee: Ugo Bruzzo (SISSA), Alessio Lo Giudice (SISSA), Mattia Pedrini (SISSA), Francesco Sala (Heriot-Watt University at Edinburgh), Alessandro Tanzini (SISSA).

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**Deadlines:**

- Deadline for asking for financial support: **March 31, 2013**  
Support for lodging will be available for some participants, in particular Ph.D. students and young Post-docs.
- Deadline for registering to the conference: **April 30, 2013**

**INFO:**

[vbac2013@gmail.com](mailto:vbac2013@gmail.com) [www.sissa.it/mp/vbac2013](http://www.sissa.it/mp/vbac2013)

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