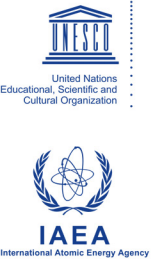




The Abdus Salam  
**International Centre  
for Theoretical Physics**

[www.ictp.it](http://www.ictp.it)



## Advanced School and Workshop on Moduli Spaces, Mirror Symmetry and Enumerative Geometry

1 - 19 August 2016

Miramare - Trieste, Italy

The Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy is organizing an **Advanced School and Workshop on Moduli Spaces, Mirror Symmetry and Enumerative Geometry**, to be held in Trieste from 1 to 19 August 2016.

### TOPICS

Moduli spaces and enumerative geometry are important classical topics in algebraic geometry. In recent years they have received important new input from theoretical physics, among others with the advent of **mirror symmetry**, which made surprising predictions for classical problems in enumerative geometry. Mirror symmetry has since developed further and is a subject of intense study. Many powerful tools and techniques have been introduced in recent years in part to understand these predictions. These involve **moduli spaces of maps, Gromov-Witten invariants, Donaldson-Thomas and Pandharipande-Thomas invariants, stability conditions on derived categories and their moduli spaces**. At the same time important progress was made in the understanding of the geometry and topology of moduli spaces of curves. This school and workshop will introduce the participants to these fascinating subjects.

### COURSES

The first two weeks (August 1-12 2016) will be devoted to an Advanced School.  
The third week will be a Workshop where the most recent developments will be presented.

The **lecturers** at the **Advanced School** are:

Alexander Kuznetsov (Steklov Institute, Moscow) - *Derived categories and moduli spaces*  
Arend Bayer (University of Edinburgh) - *Stability conditions on derived categories and applications to geometry*  
Yukinobu Toda (University of Tokyo) - *Stable pair invariants and derived categories*  
Gavril Farkas (Humboldt University Berlin, Germany) - *Geometry of moduli spaces of curves*  
Sam Grushevsky (SUNY Stony Brook) - *Geometry of moduli spaces of curves*  
Aaron Pixton (MIT) - *Tautological rings of moduli spaces of curves*  
Alessio Corti (Imperial College, London) and  
Alexander Kasprzyk (University of Nottingham) - *Mirror symmetry for Fano orbifolds*  
Paul Hacking (University of Massachusetts, Amherst) - *Cluster algebras and Mirror Symmetry*

The list of **speakers** of the **Workshop** includes:

Maksym Fedorchuk (Boston College) (TBC)  
Sam Grushevsky (SUNY Stony Brook)  
Michael Kemeny (Humboldt University, Berlin)  
Martijn Kool (Utrecht University)  
Marti Lahoz (University of Paris 7)  
Melissa Liu (Columbia University)  
Emanuele Macri (Northeastern University)  
Alina Marian (Northeastern University) (TBC)  
Andrei Negut (MIT)  
Georg Oberdieck (MIT) (TBC)  
Paolo Stellari (University of Milan)  
Jacopo Stoppa (University of Pavia)  
Michael Wemyss (University of Edinburgh)

### GRANTS

A limited number of grants are available to support the travel and living expenses of selected participants, with priority given to participants working in a developing country and who are at the early stages of their career

### HOW TO APPLY

The application form can be accessed until **1 April 2016** at the activity website:

<http://indico.ictp.it/event/7648/>

Once in the website, comprehensive instructions will guide you step-by-step, on how to fill out and submit online the application form.

Recommendation letters are not mandatory, but may help you in the admission process.

### Secretariat:

e-mail: [smr2866@ictp.it](mailto:smr2866@ictp.it) phone: +39-040-2240- 551

School's web page: <http://indico.ictp.it/event/7648/> ICTP Home Page: <http://www.ictp.it>

### Directors:

**Arend Bayer**  
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**Thomas Bridgeland**  
University of Sheffield

**Gavril Farkas**  
Humboldt University, Berlin

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ETH, Zurich

### Lecturers:

**Arend Bayer**  
University of Edinburgh

**Alessio Corti**  
Imperial College London

**Gavril Farkas**  
Humboldt University, Berlin

**Sam Grushevsky**  
SUNY Stony Brook

**Paul Hacking**  
University of Massachusetts, Amherst

**Alexander Kasprzyk**  
University of Nottingham

**Alexander Kuznetsov**  
Steklov Institute, Moscow

**Aaron Pixton**  
MIT

**Yukinobu Toda**  
University of Tokyo

## DEADLINE

for submitting applications

**1 APRIL 2016**

Trieste, April 2016

