

The CMS invites you to take part in our Summer School 2023:

Summer School 2023 on Algebraic Geometry:

Derived Categories, Stability Conditions, and Moduli Spaces

July 9-13, 2023

Derived categories have increasingly become a powerful tool in all of the main avenues of research in algebraic geometry, making connections with other areas of mathematics and physics. Many of the most important and successful applications of derived category techniques have been in conjunction with the introduction of stability conditions on derived categories and the detailed study of moduli spaces of stable objects. As always, progress begets more questions. Both the theoretical underpinnings of these techniques in general, as well as their application to new territory untouched by the derived category revolution leave much for the next generation of young mathematicians to explore.

Our goal for this summer school is to educate early career mathematicians with a background in algebraic geometry about these techniques and bring them up to date on the current state-of-the-art as well as on directions for future research. To achieve this, we have brought a broad range of experts in the field to give mini-courses throughout the week on some of the foundational tools used in the whirlwind of progress seen in the last decade and some of the new exciting directions that are currently being investigated. In addition, a number of the mini-courses will have exercise sessions to help the participants internalize the new material.

There will be six mini-courses with three sessions of 1.5 hours each given by:

Paolo Stellari (Università Degli Studi Di Milano)

Izzet Coskun (University of Illinois-Chicago)

Emanuele Macrì (University of Paris-Saclay)

Ed Segal (University College London)

Anand Deopurkar (Australian National University)

Nick Addington (University of Oregon)

Organizer: Howard Nuer (Technion)

