ODTU-Bilkent Algebraic Geometry

Counting lines on polarized K3-surfaces

By

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Abstract: Counting or estimating the number of lines or, more generally, low degree rational curves on a polarized algebraic surface is a classical problem going back almost 1.5 centuries. After a brief historical excurse, I will try to give an account of the considerable progress made in the subject in the last decade or so, mainly related to various (quasi-)polarizations of K3-surfaces:

- lines on K3-surfaces with any polarization,
- lines on low degree K3-surfaces with singularities,
- conics on low degree K3-surfaces.

If time permits, I will briefly discuss other surfaces/varieties as well.
Some parts of this work are joint projects (some still in progress) with Ilia Itenberg, Sławomir Rams, Ali Sinan Sertöz

Date: Friday, May 12, 2023
Time: 15:40 (GMT+3)
Place: Zoom

To request the event link, please send a message to sertoz@bilkent.edu.tr