



Kolloquium über Reine Mathematik

Einladung zu einem Vortrag

Dienstag, 13. Mai 2025

17 Uhr, Geom H4

Prof. Ailsa Keating
(University of Cambridge)

Title:

Mirror symmetry: a biased introduction

Abstract:

In theoretical physics, mirror symmetry is a string-theoretical duality between pairs of Calabi–Yau manifolds. We will give a gentle introduction to two mathematical distillations of this phenomenon: Kontsevich's homological mirror symmetry conjecture, and the Strominger-Yau-Zaslow duality for Lagrangian fibrations. We will use this to give an overview of recent work, joint with Paul Hacking, on mirror symmetry for K3 surfaces, i.e. simply connected Calabi-Yau manifolds of complex dimensions two. The talk will be aimed at a broad mathematical audience.

**vor dem Vortrag (ab 16.30 Uhr) stehen im Foyer vor Hörsaal H4
Kaffee und Tee bereit.**