



Kolloquium über Reine Mathematik

Einladung zu einem Vortrag

Dienstag, 14. November 2023

17 Uhr, Geom H4

Prof. Dr. Barbara Fantechi
(SISSA)

Counting curves: which, how and why

Abstract:

Enumerative geometry is a very classical branch of (complex projective) algebraic geometry, that counts solutions to geometric problems: e.g., for a cubic polynomial $f(x,y,z)$, there are 27 lines L in space with $f(p)=0$ at every point in L (Cayley-Salmon, 1849).

Around 1990, the influx of ideas from string theory (in particular Gromov-Witten invariants) opened up new research directions, which have kept developing to the present day, with continued interactions with symplectic geometry, integrable systems, and particle physics.

We will sketch a part of this story, highlighting how "abstract" notions like schemes arise naturally in very concrete problems.

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