Kolloquium über Reine Mathematik

Einladung zu einem Vortrag

Dienstag, 12. Juli 2022

17 Uhr, Geom H4

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Curves on K3 Surfaces

Abstract:

A K3 surface is a simply-connected compact complex surface with trivial canonical class. These surfaces show up in many contexts in algebraic geometry, topology, differential geometry, and mathematical physics. A longstanding conjecture states that every projective K3 surface contains infinitely many rational curves, that is, infinitely many distinct and non-constant homomorphic maps from the projective line to it. Although string theory not only predicts this, but even provides us with counting formulae for these rational curves, these statements have to be taken with a grain of salt. In my talk, I will introduce K3 surfaces, (rational) curves on them, and discuss the positive solution of this conjecture in recent and not so recent work with my coauthors Xi Chen, Frank Gounelas, and Jun Li.

Vor dem Vortrag (ab 16.30 Uhr) stehen im Raum 327 Kaffee und Tee bereit.