



## Kolloquium über Reine Mathematik

Einladung zu einem Vortrag

**Dienstag, 14. Januar 2025**

17 Uhr, Geom H4

Prof. Dhruv Ranganathan  
(University of Cambridge)

Gromov-Witten theory and the moduli space of curves

Abstract:

Gromov-Witten theory probes the geometry of a projective manifold by maps from Riemann surfaces. The space parameterizing all such maps acts as an intermediary between abstract Riemann surfaces and embedded/parameterized ones. In particular, it is a source of classes in the cohomology of the moduli space of curves. I will discuss a conjecture, going back to Levine and Pandharipande, that suggests these classes are much more constrained than one would initially imagine: they lie in the tautological subring. The conjecture remains wide open, but I will discuss recent progress that comes from using logarithmic and tropical geometry.

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

