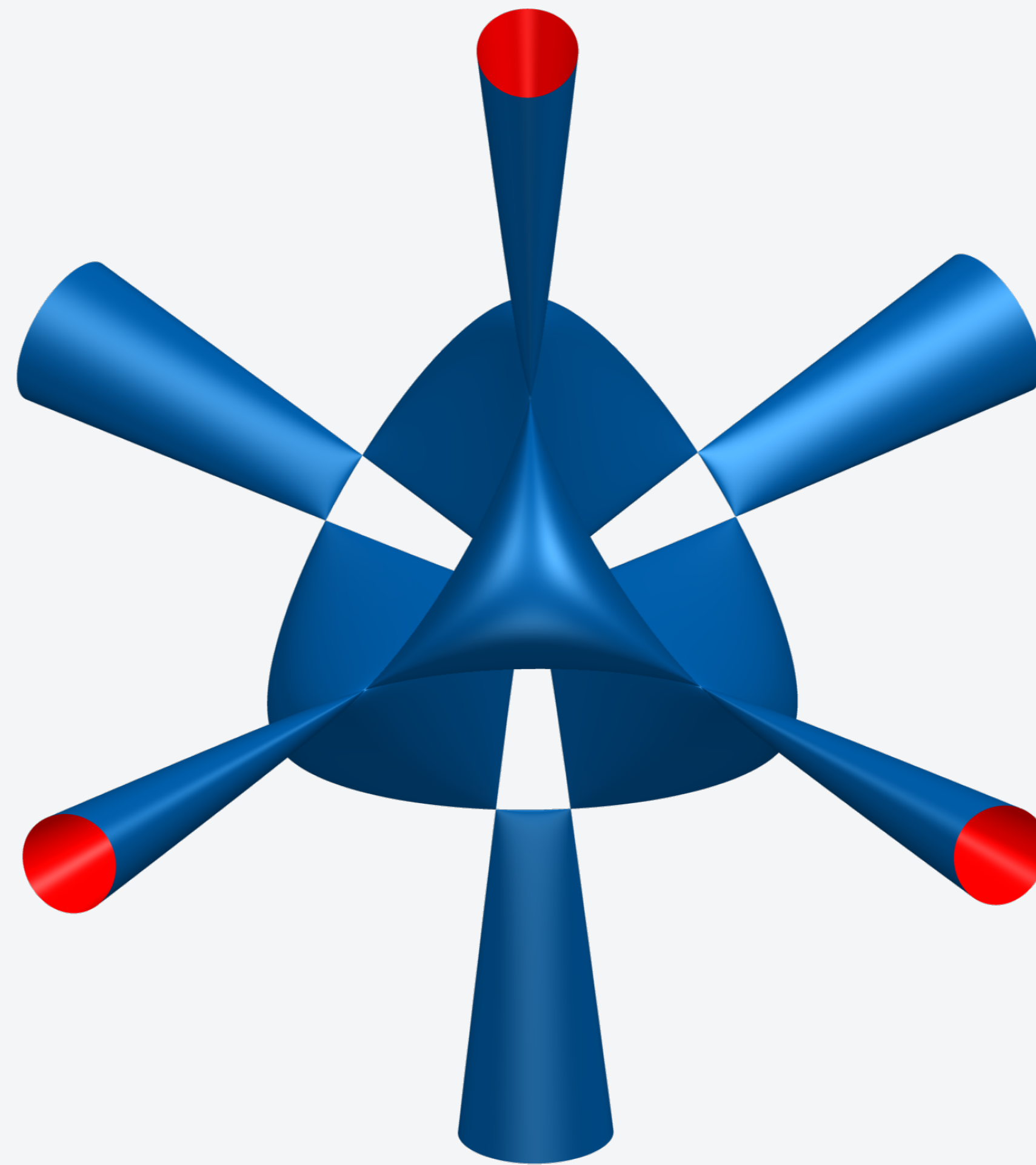


Day of Algebraic and Arithmetic Geometry



Friday, May 20th, 14:00 - 18:00

Berlin-Brandenburgische Akademie der Wissenschaften, Leibniz Saal

14:00 - 15:00 **Rahul Pandharipande (ETH Zürich)**

Algebraic cycles and moduli spaces

Abstract: I will discuss conjectures and results (old and new) related to algebraic cycles which emerge from the study of moduli spaces of curves, sheaves, and maps. Some are related to tautological cycles on moduli spaces and others are related to virtual fundamental classes. Several open questions will be presented.

15:30 - 16:30 **Emmanuel Kowalski (ETH Zürich)**

A geometric interpretation of additive problems for primes

Abstract: The Schinzel Problem in analytic number theory concerns the primes values taken by an integral polynomial evaluated at integers. In the context of function fields, this becomes a natural problem of algebraic geometry of curves. The talk will present this analogy and discuss some progress in the geometric direction, as well as some interesting open problems that arise.

17:00 - 18:00 **Vasudevan Srinivas (TIFR Mumbai)**

Abelian Varieties and Theta Functions associated to compact Riemannian manifolds: constructions inspired by superstring theory

Abstract: We outline a construction of abelian varieties and theta functions due to Moore and Witten, associated to the topological K-groups of certain Riemannian manifolds. This is based on joint work with Chris Peters and Stefan Müller-Stach.

Organizers: Hélène Esnault (FU Berlin) and Gavril Farkas (HU Berlin)