FIM-Kolloquium

Am Dienstag, den 26. Mai 2026 um 17:00 hält

Herr Prof. Dr. Raf Cluckers
(University of Lille, France)

einen Vortrag über das Thema

Integration in relation to real geometry, analysis, and number theory

Ort: (IM) HS 11, Innstraße 33, Universität Passau

Abstract: I will sketch a panorama of themes and results related to real integrals and their connections to geometry, analysis, and number theory. Using real geometry and in particular real semi-algebraic sets, I will sketch classes of functions which are stable under (parametric) integration, Fourier transform, Mellin transform, and Laplace transform (Laplace still being work in progress). This has connections to classes of distributions and their properties (like holonomicity), to periods and exponential periods and families thereof, and questions around (functional) transcendence. The directions I will focus most on comprise work by many people, in particular by Aizenbud, (my PhD student) Buggenhout, Comte, Kaiser, Lion, Miller, Raibaut, Rolin, Servi, Stout, (my PhD student) Vandebrouck, and myself.