

# Mathematisches Kolloquium

Donnerstag, 14. November 2013  
15.15 Uhr  
Seminarraum II

Francesco Veneziano  
(ESI Vienna and TU Graz)

## Torsion-anomalous intersections

### Abstract

Anomalous Intersections are a fairly recent framework introduced by Bombieri, Masser and Zannier, which comprises and generalises a vast body of problems and conjectures in Arithmetic Geometry. Let  $V$  be a variety contained in a group variety  $G$  which is usually taken to be an abelian variety or a torus.

When intersecting  $V$  with an algebraic subgroup  $B$  if the intersection  $V \cap B$  has a component of dimension strictly greater than "expected", then such a component is said to be torsion-anomalous. In analogy with many fundamental results in the field, there are conjectures giving geometrical conditions for the variety  $V$  to have only finitely many (maximal) torsion-anomalous subvarieties. The formulation of these conjectures generalises famous problems such as the Manin-Mumford Conjecture and is related to the Mordell-Lang problem.