

Stanford Department of Mathematics Colloquium

The arithmetic and geometry of division algebras

Max Lieblich
Princeton University

Abstract

Since Hamilton's discovery of the quaternions in 1843, non-commutative division algebras have played a central role in various areas of mathematics. Investigations of their structure have led to advances in topology, algebra, number theory, and algebraic geometry. Recent work has illuminated their connections to geometric problems on the existence of rational points on varieties over function fields and local-to-global problems on certain varieties over number fields.

In this lecture, I will introduce central division algebras, describe a bit of their history, and explain some of their ties to algebraic geometry and number theory.

Thursday, May 7
4:15 p.m.
Room 380-W

<http://math.stanford.edu/coll/0809/>