Algebra Seminar

Structurable algebras, automorphisms and gradings

Speaker

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1 p.m., HH-3017

Abstract:

Structurable algebras are a class of algebras with involution. They are a generalization of Jordan algebras in the sense that they admit a Tits-Kantor-Koecher (TKK) construction of a Lie algebra.

In this talk we introduce structurable algebras and discuss one of their classes, namely, the class of central simple structurable algebras related to an hermitian form. We will see their relation to associative algebras with involution and how it can be used to calculate their automorphisms and gradings. We will finish by discussing a special algebra in this class which behaves somewhat differently from the others: the split quartic Cayley algebra.