Deformations of Associative Algebras

Undergraduate Math Club CORNELL UNIVERSITY

SPEAKER

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ABSTRACT

Deformation theory is an exciting branch of algebra with applications from number theory to algebraic topology. This talk will explore the basic theory of deformations of associative algebras, which is concerned with questions of infinitesimally "perturbing" or "deforming" multiplications. Starting from the definition of a deformation, I will go on to discuss how one can associate a "tangent space" to a deformation problem and how the algebraic behemoth of a DGLA (differential graded Lie algebra) naturally controls a deformation problem.

FEB 8 · 4:30

Malott 5th floor lounge · refreshments served

$$d\omega + \frac{1}{2}[\omega, \omega] = 0.$$