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„Detecting nontrivial elements in the first K-group of Var with point counting“

Abstract:

The Grothendieck ring of varieties over k is the "universal additive invariant" of varieties: it is the free abelian group generated by varieties, modulo the relation $[X]=[Y]+[X\setminus Y]$ for any closed immersion of Y in X . This ring is the π_0 of a spectrum which encodes higher invariants of decompositions of varieties. In this talk we will introduce the machinery of assemblers and describe a method for detecting multiplicatively "interesting" elements in π_1 of that same spectrum.