

SPEAKER: Marat Rovinsky

TITLE: Stable birational invariants with the Galois descent property

ABSTRACT: Given a field k , an ‘invariant’ in the title is understood as a rule associating a vector space to each smooth k -variety in a way, contravariant with respect to the dominant morphisms.

There are basically two types of examples of invariants in the title: one is related to the 0-cycles modulo rational equivalence, another is related to differentials.

The goal of the talk is to discuss relations between these examples and to explain some basic properties of (and conjectures on) the category of stable birational invariants with the Galois descent property.

There are several equivalent ways to look at such invariants. One of them uses representations of automorphism groups of a universal domain over k . This will be also discussed (with more details in the RTG portion of the talk).