

Voevodsky motives

This is a year-long course for seniors and graduate students. The prerequisites include 2 years of algebra and basic algebraic geometry. This course cannot be taken without the research seminar “DG categories of motives”.

The idea of motives was conceived by A. Grothendieck about 50 years ago as a universal cohomology theory of algebraic varieties. An important progress was achieved by V. Voevodsky who has constructed a triangulated category of mixed motives and used it to prove the Milnor-Kato conjecture. His construction was refined by A. Beilinson and V. Vologodsky by upgrading to the DG level.

We hope to cover some of these and other topics.