

Viatcheslav KHARLAMOV (Strasbourg)

Title: *The loss of Smith-Thom maximality by Hilbert square*

Abstract: In an ongoing joint work with R. Rasdeaconu, we investigate the maximality of the Hilbert square of real algebraic varieties. We found that, starting from dimension two, many deformation classes of algebraic varieties do not contain any real variety whose Hilbert square is maximal. For example, the K3-surfaces have never a maximal Hilbert square.

In this talk I intend to outline the current state of our knowledge on this subject.