

SPEAKER: Ekaterina Amerik

TITLE: Self-maps and rational points

ABSTRACT: This is a joint work with Fedor Bogomolov and Marat Rovinsky. Let X be a variety over a number field and let $f : X \rightarrow X$ be an "interesting" rational self-map with a fixed point q . We make some general remarks concerning the possibility of using the behaviour of f near q to produce many rational points on X . As an application, we give a simplified proof of the potential density of rational points on the variety of lines of a cubic fourfold (originally obtained by Claire Voisin and myself in 2007).

RTG Talk (at 4:00 p.m.) *will be given by Yuri Tschinkel (NYU) and will be an introduction to self-maps and rational points.*