ZARISKI DENSE EXCEPTIONAL SETS IN MANIN'S CONJECTURE: DIMENSION 2

RUNXUAN GAO

In this talk, I will present my recent works on the first examples of Zariski-dense exceptional sets in Manin's conjecture in dimension 2, and discuss the principles of birational geometry behind them. As part of this study, we classify all quasi-´etale covers of Du Val del Pezzo surfaces and study their geometry, extending earlier works of Miyanishi-Zhang. If time permits, I will also discuss the computation of the conjectural exceptional set of Lehmann Sengupta-Tanimoto, and show that the Brauer-Manin obstruction to weak approximation is the only one, for these examples.