

Speaker: David McKinnon

Title: Rational points repel each other, so they can't be densely packed

Abstract: Well, actually, we only think that rational points repel each other, so the title is merely conjectural in general. In particular, there is a conjecture of Batyrev and Manin that says that on certain kinds of algebraic varieties, points with rational coordinates are not very densely packed. There is another conjecture, due to Vojta, that says that subvarieties of algebraic varieties cannot be approximated too well by rational points. The purpose of my talk will be to make all these notions precise, to explain what they have to do with one another, and to explain why Vojta's conjecture sometimes implies that of Batyrev and Manin.