1147-14-860 **Kenny Ascher*** (kascher@princeton.edu). *Uniformity and the Lang-Vojta conjecture.*

Faltings' proof of the Mordell conjecture shows that higher genus curves defined over Q have finitely many Q points. The natural generalization of this result is a conjecture of Bombieri (and more generally) Lang asserting that rational points on a variety of general type are contained in a Zariski closed subset. This conjecture has only been verified in a few cases, for example work of Moriwaki shows that varieties of general type with ample and globally generated cotangent have finitely many rational points. In another direction, Caporaso-Harris-Mazur (and later work of Hassett and Abramovich-Voloch) showed that Lang's conjecture implies a uniform version of the conjecture.

In recent work with Kristin DeVleming and Amos Turchet, we study uniformity implications of the Lang-Vojta conjecture, which provides the natural generalization for this conjecture to integral points on varieties of log general type. We also generalize Moriwaki's result, and show that varieties of log general type with sufficiently positive log cotangent bundle have finitely many integral points. A key tool in our work is the analysis of the positivity of the logarithmic cotangent bundle. (Received January 29, 2019)