

1127-37-314

**Jan-Li Lin\*** ([janlin@math.northwestern.edu](mailto:janlin@math.northwestern.edu)). *On the arithmetic dynamics of monomial maps.*

I will introduce several conjectures in arithmetic dynamics, including Silverman's conjectures for height growth, Mordell-Lang conjecture, and Manin-Mumford conjecture. These conjectures are difficult in general. For monomial maps on the algebraic tori, these conjectures are true. With a little help from toric geometry, we can generalize the results to monomial maps on toric varieties. (Received February 06, 2017)