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Some Explicit Computations on Toric Vector Bundles with Applications to Arithmetic Dynamics

Toric varieties form a rich class of rational varieties with interesting geometric and arithmetic properties, Moreover, their combinatorial nature makes explicit computational approaches possible. In this talk, I will focus on:

1)How explicit descriptions and computations of global sections of toric vector bundles can be employed to study heights, arithmetic dynamics, and potentially moduli spaces of morphisms.
2) How to carry out these computations using Macaulay2, along with a report on recent progress and applications to the Kawaguchi-Silverman conjecture in arithmetic dynamics.