

# ALGEBRAIC-TROPICAL CORRESPONDENCE FOR RATIONAL CURVES

ILYA TYOMKIN

ABSTRACT. In my talk I'll discuss the problem of enumeration of rational curves with marked points on toric varieties that intersect given orbits, have prescribed tangency profile to the boundary divisor, and satisfy multiple cross-ratio constraints. I'll focus on the tropical approach to the problem and will present an algebraic-tropical correspondence theorem that reduces the problem to a combinatorial one. If time permits, I'll briefly explain the proof of the correspondence theorem, which is surprisingly short, involves only the standard theory of schemes, and works in arbitrary characteristic (in small characteristics the algebraic curves should be counted with appropriate multiplicities).