GIOVANNI ROSSO, Concordia

Specialness for non-archimedean varieties

Since the fundamental work of Faltings on Mordell's conjecture, many conjectures have been made concerning the problems of when rational points of a variety over a number field are (potentially) Zariski dense. Varieties whose rational points are (potentially) Zariski dense are called special, and Campana characterised these varieties as the ones that (loosely speaking) don't admit fibrations to varieties of general type. Conjecturally, this is equivalent to the fact that complex analytification of the variety is Brody-special; that is, it admits a dense entire curve. Inspired by the notion of Brody-special, in a joint work with Jackson Morrow, we introduced the notion of K-analytically special varieties over an algebraically closed non archimedean field K. In this presentation, I shall explain this definition and prove several results (K-analytically special sub-varieties of semi-abelian varieties are translate of semi-abelian varieties; K-analytically special varieties don't dominate pseudo-K-analytically Brody hyperbolic variety) that support the fact that our notion is the right one to test specialness in p-adic analytic geometry.