Upstate New York Online Number Theory Colloquium

Time and Date: 12:00 pm EST October 12, 2020

Speaker: Michel Waldschmidt

Title: Some variants of Seshadri's constant

Abstract: Seshadri's constant is related to a conjecture due to Nagata. Another conjecture, also due to Nagata and solved by Bombieri in 1970, is related with algebraic values of meromorphic functions. The main argument of Bombieri's proof leads to a Schwarz Lemma in several variables, the proof of which gives rise to another invariant associated with symbolic powers of the ideal of functions vanishing on a finite set of points. This invariant is an asymptotic measure of the least degree of a polynomial in several variables with given order of vanishing on a finite set of points. Recent works on the resurgence of ideals of points and the containment problem compare powers and symbolic powers of ideals.