Online Number Theory Seminar

14 March 2025. – 17:00-17:50

J. Mello: Height bounds for S-integral solutions of hyper-superelliptic equations and multiplicative dependence of values of functions.

In this talk, I will report on joint work with Bérczés, Bugeaud, Győry, Ostafe and Sha about new explicit height bounds for S-integral solutions of hyper-superelliptic equations subject to the LeVeque condition, as well as a new improvement on a theorem of Schinzel and Tijdeman with applications on the finiteness of sets of multiplicative dependent values of rational functions modulo approximated groups. We aim to point relations of this to the umbrella of results in the multiplicative group called "unlikely intersections".