

The Dynamical Schinzel-Zassenhaus Conjecture and the Transfinite Diameter of Trees

mardi 9 septembre 2025 10:00 (1 heure)

In 2019, Dimitrov proved the Schinzel-Zassenhaus Conjecture. Harry Schmidt and I extended his general strategy to cover initial first dynamical variants of this conjecture. One common tool in both results is Dubinin's Theorem on the transfinite diameter of a hedgehog, which is a star-shaped tree in the plane.

In this talk, I will report on joint work in progress with Schmidt. We find new upper bounds for the transfinite diameter of finite topological trees. These trees are constructed using the Hubbard tree of a postcritically finite polynomial and reflect its dynamical properties. As a consequence, we can prove lower bounds for the Call-Silverman (or canonical) height for a class of postcritically finite polynomials.

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Classification de Session: Morning Chair: Laurent Clozel