

NORDAN 2016: Several Complex Variables

Invariant measures for birational surface maps defined over number fields

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Iterating a birational selfmap of the complex projective plane can lead to very interesting dynamics. When the dynamical degree is larger than one, it is expected that there exists a unique measure of maximal entropy, and that this measure is obtained as the intersection of two positive closed currents. Unfortunately, this intersection is only known to be well-defined under hypotheses that are often hard to verify. I will report on joint work with Paul Reschke, where we prove that if the map has rational (or algebraic) coefficients, then the intersection is well defined and the complex dynamics is under control.