

Harvard-M.I.T. Algebraic Geometry Seminar

MAHLER MEASURE FOR A DYNAMICAL SYSTEM AND INTERSECTION THEORY ON A NORMAL ARITHMETIC SURFACE

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Abstract:

The Mahler measure expresses the height of an algebraic number as the integral of the log of its equation on the unit circle. The usual height is in fact the canonical height associated to the monomial maps x^n . We show in this work that for any rational map $\varphi(x)$ the canonical height of an algebraic number with respect to φ can be expressed as the integral, with adelic terms, of the log of its equation. The proof involves intersection theory on a possibly singular arithmetic surface.

Tuesday, March 11th

3:00 p.m.

MIT Room 4-370

<http://www-math.mit.edu/~jstarr/03sem/>.