

## **abstract**

JOINT IAS/PU NUMBER THEORY SEMINAR

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

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The solution to many classical counting asymptotics problems in number theory goes by comparison with an analogous volume asymptotics. In a general setting, we establish asymptotic formulae for volumes of height balls in analytic varieties over local fields and in adelic points of algebraic varieties over number fields, relating the Mellin transforms of height functions to Igusa integrals and to global geometric invariants of the underlying variety. In the adelic setting, this involves the construction of general Tamagawa measures. This is joint work with Yuri Tschinkel (Courant).