



Seminar/Talk

A number theoretic characterization of (FRS) morphisms

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Host: Tim Browning

I will present joint work with Glazer and Hendel, which extends the Lang-Weil estimates to estimates working with rings of integers modulo powers of primes rather than with finite fields (see arxiv). These bounds were found by Serre in the smooth case, and by Avni and Aizenbud in the case of rational singularities (which is close to the smooth case). We render the situation uniform in the fibers of an algebraic morphism each of whose fibers has rational singularities. Surprisingly, this relative case with uniform bounds needs rather different methods, related to motivic integration, or more precisely uniform p-adic integration. Subtle new results about formally positive uniform p-adic functions needed to be developed for this to work.

Thursday, March 11, 2021 02:00pm - 03:00pm

<https://mathseminars.org/seminar/AGNTISTA>



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