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GRADUATE STUDENT SEMINAR

Thursday, 12 Mai, 12:15-13:00
Seminarraum 00.003, Spiegelgasse 1

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p -adic numbers and their interplay with complex geometry

ABSTRACT

In my talk I will introduce p -adic numbers and explain how to integrate complex valued functions on them. We use this to construct for a polynomial f with integer coefficients an invariant I_f , called the Igusa zeta function, which interpolates between number theoretic and complex geometric properties of f . By means of explicit examples I will explain how to compute I_f in certain cases and present some new conjectures.