ANALYSIS SEMINAR

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On zeta-function of well-rounded lattices in the plane

by

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ABSTRACT

One powerful method of determining the asymptotic behavior of a sequence is based on studying the analytic properties of its Dirichlet-series generating function, and then applying a certain Tauberian theorem. I will start by discussing this general principle and some of its applications in algebra and number theory. I will then concentrate on the particular problem of estimating the number of fixed-index well-rounded sublattices of a given planar lattice as the index goes to infinity. This problem has recently received some attention, and I will review the known results and will show how the analytic method described above yields a desired asymptotic formula.

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Monday, February 27, 2012 at 3:00-4:00 pm

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