Applied and Computational Mathematics Seminar

Title: The Exact Renormalization Group: Introduction and Applications

Speaker: Dr. Oliver J. Rosten (Dublin Institute for Advanced Studies)

Date: Thu 8th November 2007 at 2:15PM

Location: Mathematical Sciences Seminar Room

Abstract: I will introduce the Exact Renormalization Group (ERG), with particular emphasis on (generalizations of) Polchinski's formulation. I will present a discussion of how the ERG allows one to construct nonperturbatively renormalizable quantum field theories and describe why this makes the ERG a power tool for perfoming nonperturbative calculations. Finally, I will briefly discuss some of the applications of the ERG, including gauge theories and quantum gravity.

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