Tuesday, October 28, 2008
12:30 - 2:00 p.m.

Mathematical Physics Seminar

Room MCS180 in the Math Dept
111 Cummington Street

A dynamical systems perspective on the Dyson-Schwinger equation for QED

Guillaume van Baalen
Boston U.

In this talk I will focus on recent work with K. Yeats, D. Kreimer and D. Uminsky on the Dyson-Schwinger equation for QED. This talk is a follow-up from D. Kreimer's one on october 21st, but should be self-contained.

Traditional approaches to most QFT use a perturbative approach coupled to renormalization techniques. In our work, we use dynamical systems methods to derive global (i.e. non-perturbative) conditions that ensure the existence/non-existence of 'physical' solutions to the Dyson-Schwinger equation.

Tea at 12:15

http://math.bu.edu/research/mathphys/seminar.html