

ANALYSIS AND DIFFERENTIAL GEOMETRY  
COLLOQUIUM

*Radiation Fields for Wave Equations*

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**Abstract:** Radiation fields are rescaled limits of solutions of wave equations that capture the radiation pattern seen by a distant observer. They are intimately connected with the Fourier and Radon transforms and with scattering theory. In this talk, I will define and discuss radiation fields in a few contexts, with an emphasis on spacetimes that look flat near infinity. The main result is a connection between the asymptotic behavior of the radiation field and a family of quantum objects on an associated asymptotically hyperbolic space. I will assume no prior familiarity with PDEs.

Thursday, February 7, 2019, 4:00 pm  
Mathematics and Science Center: W303

MATHEMATICS  
EMORY UNIVERSITY