

BI-CO MATHEMATICS COLLOQUIUM

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*“Resonance and the Null Condition
for Nonlinear Wave Equations”*

Monday, September 21, 2015

Talk at 4:00 – Park 338
Tea at 3:30 – Park 355, Math Lounge

Abstract:

In this talk we will discuss a class of quasilinear wave equations $\square u = F(u, u', u'')$ whose special structure ensures the existence of a globally defined solution given sufficiently small initial data. We will explore classical PDE methods used to address this question, including energy and Sobolev estimates, and also a new approach involving a “change of variables” via a special transformation.

BRYN MAWR COLLEGE