

# GEOMETRIC ANALYSIS SEMINAR

**“The linear stability of the Schwarzschild spacetime  
in the harmonic gauge: odd part”**

**Pei-Ken Hung  
(MIT)**

Abstract: We study the odd solution of the linearized Einstein equation on the Schwarzschild background and in the harmonic gauge. With the aid of Regge-Wheeler quantities, we are able to estimate the odd part of Lichnerowicz d'Alembertian equation. In particular, we prove the solution decays at rate  $\tau^{-1+\delta}$  to a linearized Kerr solution.

**Wednesday, September 26<sup>th</sup>, 2018  
MIT, Room 2-131  
Time: 4:00 PM**



Massachusetts  
Institute of  
Technology