

*Department of Mathematics,
University of California San Diego*

Joint UCI-UCR-UCSD Southern California Differential Geometry Seminar

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Strong cosmic censorship in spherical symmetry for two-ended asymptotically flat data

Abstract:

I will present a recent work (joint with Sung-Jin Oh) on the strong cosmic censorship conjecture for the Einstein-Maxwell-(real)-scalar-field system in spherical symmetry for two-ended asymptotically flat data. For this model, it was previously proved (by M. Dafermos and I. Rodnianski) that a certain formulation of the strong cosmic censorship conjecture is false, namely, the maximal globally hyperbolic development of a data set in this class is extendible as a Lorentzian manifold with a C^0 metric. Our main result is that, nevertheless, a weaker formulation of the conjecture is true for this model, i.e., for a generic (possibly large) data set in this class, the maximal globally hyperbolic development is inextendible as a Lorentzian manifold with a C^2 metric.

Special Note:

Please note the special day, time, and location of this seminar. If you would like to attend and need a ride to UCR, please talk to Lei Ni.

Friday, April 21, 2017

4:00 PM

UC Riverside, Surge Bldg 284
