

DIFFERENTIAL GEOMETRY/PDE SEMINAR

WEDNESDAY, AUGUST 8, 2012

SAVERY 140

2:20PM–3:30PM

The generalized Jang equation and asymptotic behaviors

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The generalized Jang equation was introduced in an attempt to prove the Penrose inequality in the setting of general initial data for the Einstein equations, and is a natural extension of an equation studied and used by Schoen and Yau in their proof of the positive mass theorem. In this talk we give an extensive study of the generalized equation, proving existence, regularity, and blow-up results. In particular, precise asymptotics for the blow-up behavior are given, and it is shown that blow-up solutions are not unique.

For more information about this seminar, visit the DG/PDE Seminar Web page (from the Math Department home page, www.math.washington.edu, follow the link **Seminars, Colloquia, and Conferences**).