

# DIFFERENTIAL GEOMETRY/PDE SEMINAR

FRIDAY, DECEMBER 6, 2013

PADELDFORD C-401

3PM–4PM

Critical Metrics on Connected Sums of Einstein Four-Manifolds

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I will discuss a gluing procedure designed to obtain canonical metrics on connected sums of Einstein four-manifolds. The main application is an existence result, using two well-known Einstein manifolds as building blocks: the Fubini-Study metric on  $CP^2$ , and the product metric on  $S^2 \times S^2$ . Using these metrics in various gluing configurations, critical metrics are found on connected sums for a specific Riemannian functional, which depends on the global geometry of the factors. This is joint work with Matt Gursky.

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

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