

DIFFERENTIAL GEOMETRY/PDE SEMINAR

WEDNESDAY, OCTOBER 17, 2007

PADELDFORD C-36

3:50–5PM

On the σ_2 -scalar curvature and its application

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In this talk, we establish an analytic foundation for a fully non-linear equation $\frac{\sigma_2}{\sigma_1} = f$ on manifolds with positive scalar curvature. This equation arises from conformal geometry. As application, we prove that, if a compact 3-dimensional manifold M admits a riemannian metric with positive scalar curvature and $\int \sigma_2 \geq 0$, then topologically M is a quotient of sphere.

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**).

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