PIMS DISTINGUISHED LECTURE I

Friday, April 7, 2006
PDL C-401
2:30-3:30pm

Evolution of Minimal Tori in Riemannian Manifolds

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We propose a new approach to obtain minimal surfaces of genus $p \geq 1$ in a closed Riemannian manifold by the L^2 negative gradient flow of the energy $E(u, \sigma)$, where σ denotes the conformal structures on the genus p surface. In a recent work with Jiayu Li and Qinyue Liu, we concentrate in the case $p = 1$, i.e. the surface being a 2-torus, and obtain results on the analysis of the flow including the existence of the initial value problem, blow-up of the map $u(t)$ and degeneration of the conformal structure $\sigma(t)$, energy identities when blow-up and degeneration occurs, and convergence at time infinity, etc.

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**).