PIMS / AMI Seminar

Thursday, July 12, 2012
3:30 p.m.
CAB 365

"Phase-field approximation to Willmore flows with constraints"

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Abstract

The well-posedness of a phase-field approximation to the Willmore flow with either volume constraint or area and volume constraints is established, assuming further that the functional approximating the area has no critical point satisfying the two constraints in the second case. The existence proof relies on the underlying gradient flow structure of the problem: the time discrete approximation is solved by a variational minimization principle. The main difficulty stems from the nonlinearity of the area constraint.

Refreshments will be served in CAB 649 at 3:00 p.m.