

PIMS / AMI Seminar



Friday, March 22, 2013 3:00 p.m. CAB 657

"On Well-posedness of Some Models for Ferrohydrodynamics"

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Abstract

Ferrohydrodynamics describes the dynamics of ferrofluids -- colloids with nano-sized magnetic particles. Since its discovery in the 1960s, such fluids have found many applications in science and engineering. On the other hand, the physical modeling of these fluids is still far from complete, and the mathematical study of existing models preliminary. In this talk I will discuss the well-posedness of several popular models. I will also present some analysis revealing the unique structure of ferrohydrodynamical equations. This is joint work with Dong Li of University of British Columbia and Zhichun Zhai of University of Alberta.