

Department of Mathematics

University of Houston

Scientific Computing Seminar

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Department of Mathematics and Center of Computational Science

Tulane University

Macroscopic fiber motion in a polymeric fluid driven by a four roll mill

Monday, Sept. 28, 2015

2 PM- 3 PM

Room 646 PGH

Abstract: We study the dynamics of an elastic fiber in a viscoelastic fluid described by the FENE-P model. We examine the effect of Weissenberg number(Wi), fiber rigidity and maximum distention parameter on fiber motion and the evolution of polymer stress. We also look at the ability of the fiber to escape closed streamlines in Newtonian fluids and viscoelastic fluids.

This seminar is easily accessible to persons with disabilities. For more information or for assistance, please contact the Mathematics Department at 743-3500.