Abstract Submitted
for the MAR11 Meeting of
The American Physical Society

Macroscopic transport and topological transitions in ordered suspensions in parallel-wall channels[1] JERZY BLAWZDZIEWICZ, Texas Tech University, NIDHI KHURANA, Yale University, ELIGIUSZ WAJNRYB, IPPT, Warsaw, Poland — Our recent investigations of ordered suspensions in parallel-wall channels revealed complex nonlinear dynamics, including formation of defects in a particle lattice, dynamic order-disorder transitions, buckling of particle lattice, and fingering instabilities. We will describe hydrodynamic mechanisms that govern this collective particle behavior.

[1]Supported by NSF grant CBET–0931504

Jerzy Blawzdziewicz
Texas Tech University

Date submitted: 19 Nov 2010 Electronic form version 1.4