1056-76-178 Andrea Bertozzi\* (bertozzi@math.ucla.edu), UCLA Department of Mathematics, 520 Portola Plaza, Los Angeles, CA 90095. Mathematical theory of particle laden flow.

Particle laden thin film flow is particularly complex to model as it involves microscale and macroscopic physics and moving contact lines. The author will present recent results from UCLA discussing both physical experiments of this problem and related mathematical theory and the mathematical challenges faced when trying to understand particle laden flow. (Received August 12, 2009)