



# THE UNIVERSITY OF CHICAGO

COMPUTATIONAL AND APPLIED MATHEMATICS  
STUDENT SEMINAR

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**Particle-laden Flows on an Incline**

**THURSDAY, February 15, 2018, at 1:00 PM**  
Jones 226, 5747 South Ellis Avenue

## ABSTRACT

We study the behaviour of particle-laden thin-films down an incline. In this discussion, we are particularly interested in the case of constant flux flows. We model the problem as a system of two transport equations. Experiments are done to obtain height profiles, front positions, surface velocities and observe different regimes. The model gives qualitative predictions of the height profiles and the linear dependence on time of the front positions. Still, certain degrees of discrepancy exist and we seek for refinements of the model.