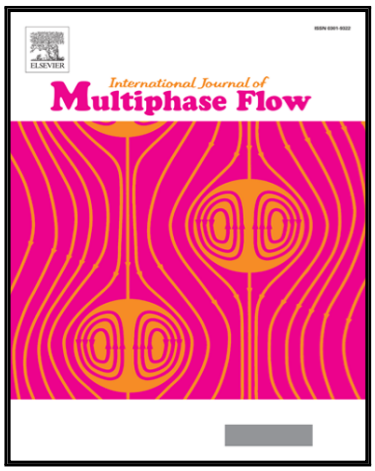

Longitudinal Instability of Slurry Pipeline Flow

René Samson, Joseph A. Biello

PII: S0301-9322(16)30622-X
DOI: 10.1016/j.ijmultiphaseflow.2016.12.005
Reference: IJMF 2516

To appear in: *International Journal of Multiphase Flow*

Received date: 23 October 2016
Revised date: 19 December 2016
Accepted date: 19 December 2016

Please cite this article as: René Samson, Joseph A. Biello, Longitudinal Instability of Slurry Pipeline Flow, *International Journal of Multiphase Flow* (2016), doi: 10.1016/j.ijmultiphaseflow.2016.12.005

Highlights

- A novel, first-principles mathematical model for plug formation in slurry pipelines is proposed.
- The model is a relatively easy-to-use tool for practitioners in "what-if" scenario studies, both in the design phase and during operation.
- The model emphasizes the importance of top-size control of the slurry particles.
- Since the described phenomena are very difficult to capture in a pilot plant, there is practically no feasible experimental alternative for the model.