Abstract Submitted
for the DFD08 Meeting of
The American Physical Society

Granular segregation in spinning pipes and circular Hele-Shaw cells MAXIMO PLIEGO, Universidad Politecnica de Queretaro, ABRAHAM MEDINA, ESIME AZCAPOTZALCO, IPN, FRANCISCO HIGUERA, E. T. S. Ingenieros Aeronauticos, UPM — Spinning vertical pipes and spinning horizontal Hele-Shaw cells, both filled with dry, polydisperse, non cohesive granular matter, yield complex flows whose expanding shapes depend on the reached angular velocity $\Omega$, the grain sizes and the inner radii of the pipes and the circular cells, respectively. In this work, we present a simple theoretical treatment and a series of experiments related to how the grain’s trajectories for grains of several sizes produce segregation

Francisco Higuera
E. T. S. Ingenieros Aeronauticos, UPM

Date submitted: 04 Aug 2008

Electronic form version 1.4