

Abstract Submitted
for the DFD05 Meeting of
The American Physical Society

Destabilization of a cloud of particles falling in a viscous fluid
BLOEN METZGER, MARIA EKIEL-JEZEWSKA, ELISABETH GUAZZELLI,
GEP IUSTI MARSEILLE FRANCE TEAM, IPPT WARSAW POLAND COLLAB-
ORATION — Surprisingly, a spherical cloud of particles settling in a fluid at low
Reynolds number does not remain spherical. The cloud evolves into a torus which
subsequently breaks up into two or more droplets in a repeating cascade. This is
investigated both experimentally and numerically.

Olivier Pouliquen

Date submitted: 15 Jul 2005

Electronic form version 1.4