

Abstract Submitted
for the MAR12 Meeting of
The American Physical Society

Rearrangements in flow of foam VIJAYAKUMAR CHIKKADI, ERIK WOLDHUIS, Instituut-Lorentz, Universiteit Leiden, PETER SCHALL, Institute of Physics, University of Amsterdam, MARTIN VAN HECKE, Kamerlingh Onnes Laboratory, Universiteit Leiden — The nonaffine deformation of amorphous solids has attracted considerable attention. Recent simulations and experiments have shown that the non-affine particle rearrangements under an applied stress are localised, and they generate a long-ranged quadrupolar strain field. Here we have investigated the particle rearrangements in flows of soft, viscous spheres near the jamming point. The characteristics of the particle rearrangements are extremely different as we move away from the jamming point.

Vijayakumar Chikkadi
Instituut-Lorentz, Universiteit Leiden

Date submitted: 11 Nov 2011

Electronic form version 1.4