Abstract Submitted
for the DFD06 Meeting of
The American Physical Society

Spreading fronts in sedimentation of dilute suspension of spheres
JOHN HINCH, DAMTP, Cambridge University, DANIEL CHEHATA, LAURENCE BERGOUGNOUX, ELISABETH GUAZZELLI, IUSTI, Polytech'Marseille — When very dilute suspensions settle, a wide diffuse front can form between the clear fluid above and the uniform suspension below. The width of this front grows through two mechanisms - hydrodynamic interactions and polydispersity in the size of the spheres. We explore experimentally and by numerical simulations how these two effects combine.

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Date submitted: 02 Aug 2006 Electronic form version 1.4