



- 1 When does a granular material behave like a continuum fluid?  
**J. R. de Bruyn**
- 5 Evolution of fluid-like granular ejecta generated by sphere impact  
**J. O. Marston, E. Q. Li & S. T. Thoroddsen**
- 37 Soliton generation by internal tidal beams impinging on a pycnocline: laboratory experiments  
**M. J. Mercier, M. Mathur, L. Gostiaux, T. Gerkema, J. M. Magalhães, J. C. B. Da Silva & T. Dauxois**
- 61 The effect of an upstream hull on a propeller in reverse rotation  
**A. Verma, H. Jang & K. Mahesh**
- 89 Finite-sample-size effects on convection in mushy layers  
**J.-Q. Zhong, A. T. Fragoso, A. J. Wells & J. S. Wettlaufer**
- 109 Streaming-potential phenomena in the thin-Debye-layer limit. Part 2. Moderate Péclet numbers  
**O. Schnitzer, I. Frankel & E. Yariv**
- 137 Turbulent–laminar coexistence in wall flows with coriolis, buoyancy or Lorentz forces  
**G. Brethouwer, Y. Duguet & P. Schlatter**
- 173 Unsteady forces on spheres during free-surface water entry  
**T. T. Truscott, B. P. Epps & A. H. Techet**
- 211 Homogeneous swarm of high-Reynolds-number bubbles rising within a thin gap. Part 1. Bubble dynamics  
**E. Bouche, V. Roig, F. Risso & A.-M. Billet**
- 232 Instability and morphology of polymer solutions coating a fibre  
**F. Boulogne, L. Pauchard & F. Giorgiutti-Dauphiné**
- 251 Spatial optimal growth in three-dimensional compressible boundary layers  
**D. Tempelmann, A. Hanifi & D. S. Henningson**
- 280 Perturbation response and pinch-off of vortex rings and dipoles  
**C. O'Farrell & J. O. Dabiri**
- 301 Direct numerical simulation of inertial particle entrainment in a shearless mixing layer  
**P. J. Ireland & L. R. Collins**
- 333 Using surfactants to stabilize two-phase pipe flows of core–annular type  
**A. P. Bassom, M. G. Blyth & D. T. Papageorgiou**
- 360 Feedback control for form-drag reduction on a bluff body with a blunt trailing edge  
**J. A. Dahan, A. S. Morgans & S. Lardeau**
- 388 Axisymmetric superdirectivity in subsonic jets  
**A. V. G. Cavalieri, P. Jordan, T. Colonius & Y. Gervais**
- 421 Numerical study of magnetohydrodynamic duct flow at high Reynolds and Hartmann numbers  
**D. Krasnov, O. Zikanov & T. Boeck**

S indicates supplementary data or movies available online.