

S 594 Investigation of the mobile granular layer in bedload transport by laminar shearing flows  
**P. Aussillous, J. Chauchat, M. Pailha, M. Médale & É. Guazzelli**

**JFM Rapids (online only)**

S R1 Flapping dynamics of an inverted flag  
**D. Kim, J. Cossé, C. Huertas Cerdeira & M. Gharib**

S 616 Instability of plumes driven by localized heating  
**J. M. Lopez & F. Marques**

S 641 Spin-up of a magnetically driven tornado-like vortex  
**T. Vogt, I. Grants, S. Eckert & G. Gerbeth**

R2 Electrostatically controlled large-amplitude, non-axisymmetric waves in thin film flows down a cylinder  
**A. W. Wray, D. T. Papageorgiou & O. K. Matar**

S indicates supplementary data or movies available online.

- 1 Slippery interfaces for drag reduction  
**P. A. Tsai**
- 5 Unifying binary fluid diffuse-interface models in the sharp-interface limit  
**D. N. Sibley, A. Nold & S. Kalliadasis**
- 44 Thermodynamic effects during growth and collapse of a single cavitation bubble  
**M. Dular & O. Coutier-Delgosha**
- 67 Stability of internal gravity wave beams to three-dimensional modulations  
**T. Kataoka & T. R. Akylas**
- 91 On the persistence of memory: do initial conditions impact vortex formation?  
**J. Kriegseis, M. Kinzel & D. E. Rival**
- 107 Inertial instability of flows on the inside or outside of a rotating horizontal cylinder  
**E. S. Benilov & V. N. Lapin**
- 130 Transient dispersion regimes  
**R. C. Holleman & M. T. Stacey**
- 150 Instability regimes in the primary breakup region of planar coflowing sheets  
**D. Fuster, J.-P. Matas, S. Marty, S. Popinet, J. Hoepffner, A. Cartellier & S. Zaleski**
- 177 Comparison between two- and three-dimensional Rayleigh–Bénard convection  
**E. P. van der Poel, R. J. A. M. Stevens & D. Lohse**
- 195 Steady analysis of transcritical flows in collapsible tubes with discontinuous mechanical properties: implications for arteries and veins  
**A. Siviglia & M. Toffolon**
- 216 Interaction of panel flutter with inviscid boundary layer instability in supersonic flow  
**V. Vedenev**
- 250 Effect of background turbulence on an axisymmetric turbulent jet  
**B. Khorsandi, S. Gaskin & L. Mydlarski**
- 287 Carbon dioxide dissolution in structural and stratigraphic traps  
**M. L. Szulczewski, M. A. Hesse & R. Juanes**
- 316 Generalized phase average with applications to sensor-based flow estimation of the wall-mounted square cylinder wake  
**J. A. Bourgeois, B. R. Noack & R. J. Martinuzzi**
- S 351 Threshold shear stress for the transition between tumbling and tank-treading of red blood cells in shear flow: dependence on the viscosity of the suspending medium  
**T. M. Fischer & R. Korzeniewski**
- 366 A generalized mathematical model of geostrophic adjustment and frontogenesis: uniform potential vorticity  
**C. J. Shakespeare & J. R. Taylor**
- 414 Steady approach of unsteady low-Reynolds-number flow past two rotating circular cylinders  
**Y. Ueda, T. Kida & M. Iguchi**
- 444 Similarity models for unsteady free convection flows along a differentially cooled horizontal surface  
**A. Shapiro & E. Fedorovich**
- 464 Rayleigh–Bénard instability generated by a diffusion flame  
**P. Pearce & J. Daou**
- 495 Transcritical flow of a stratified fluid over topography: analysis of the forced Gardner equation  
**A. M. Kamchatnov, Y.-H. Kuo, T.-C. Lin, T.-L. Horng, S.-C. Gou, R. Clift, G. A. El & R. H. J. Grimshaw**
- 532 Non-homogeneous rapid distortion theory on transversely sheared mean flows  
**M. E. Goldstein, M. Z. Afsar & S. J. Leib**
- S 570 Time-dependent, non-monotonic mixing in stratified turbulent shear flows: implications for oceanographic estimates of buoyancy flux  
**A. Mashayek, C. P. Caulfield & W. R. Peltier**

Contents continued on inside back cover.