

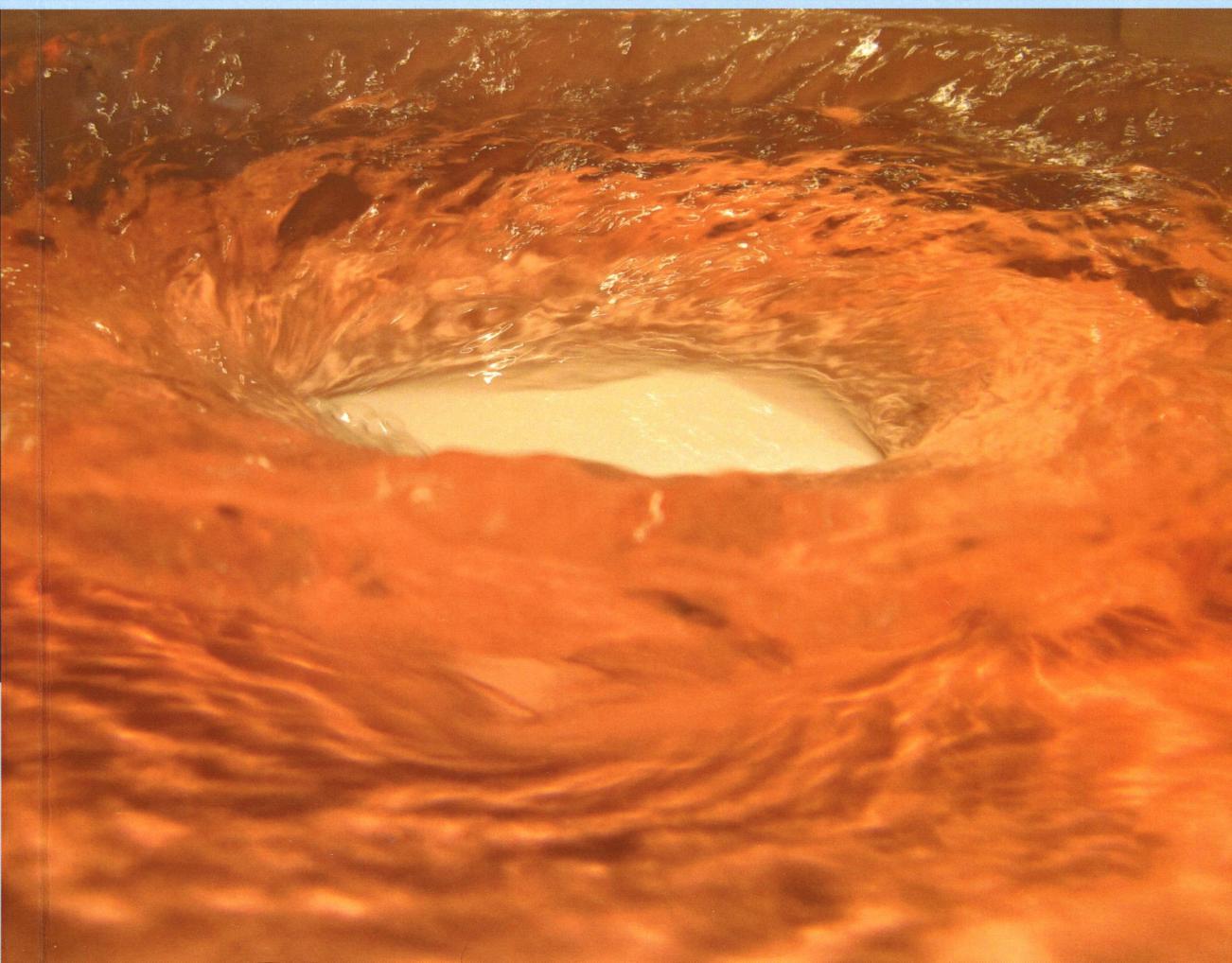
FM  
J80/f

CAMBRIDGE  
UNIVERSITY PRESS

25 November 2014

# Journal of Fluid Mechanics

VOLUME 759



- 1 Matrix-free continuation of limit cycles and their bifurcations for a ducted premixed flame  
**I. C. Waugh, K. Kashinath & M. P. Juniper**
- 28 The effect of Reynolds number on turbulent drag reduction by streamwise travelling waves  
**E. Hurst, Q. Yang & Y. M. Chung**
- 56 Dynamics of fluid flow over a circular flexible plate  
**R.-N. Hua, L. Zhu & X.-Y. Lu**
- 73 Threshold condition for spray formation by Faraday instability  
**Y. Li & A. Umemura**
- 104 Study on high-Weber-number droplet collision by a parallel, adaptive interface-tracking method  
**C.-K. Kuan, K.-L. Pan & W. Shyy**
- 134 Viscous effects of shock reflection hysteresis in steady supersonic flows  
**Y. Tao, X. Fan & Y. Zhao**
- 149 Three-dimensional instabilities of a stratified cylinder wake  
**M. Bosco & P. Meunier**
- 181 Feed-forward control of a perturbed backward-facing step flow  
**N. Gautier & J.-L. Aider**
- S 197 Confined flow of suspensions modelled by a frictional rheology  
**B. Lecampion & D. I. Garagash**
- 236 On a random time series analysis valid for arbitrary spectral shape  
**P. A. E. M. Janssen**
- 257 Numerical investigation of the generation and growth of coherent flow structures in a triggered turbulent spot  
**J. R. Brinkerhoff & M. I. Yaras**
- 295 Nonlinear interactions between the two wakes behind a pair of square cylinders  
**J. Mizushima & G. Hatsuda**
- 321 Wall-separation and vortex-breakdown zones in a solid-body rotation flow in a rotating finite-length straight circular pipe  
**Z. Rusak & S. Wang**
- S 360 Convectively driven shear and decreased heat flux  
**D. Goluskin, H. Johnston, G. R. Flierl & E. A. Spiegel**
- S 386 From Newton's bucket to rotating polygons: experiments on surface instabilities in swirling flows  
**B. Bach, E. C. Linnartz, M. H. Vested, A. Andersen & T. Bohr**
- 404 A data-assimilation method for Reynolds-averaged Navier–Stokes-driven mean flow reconstruction  
**D. P. G. Foures, N. Dovetta, D. Sipp & P. J. Schmid**
- S 432 Time-resolved evolution of coherent structures in turbulent channels: characterization of eddies and cascades  
**A. Lozano-Durán & J. Jiménez**
- S 472 Intermittency and synchronized motion of red blood cell dynamics in shear flow  
**D. Cordasco & P. Bagchi**
- 489 Lagrangian chaos in confined two-dimensional oscillatory convection  
**L. Oteski, Y. Duguet & L. R. Pastur**
- 520 Drop motion through a confining orifice  
**A. D. Bordoloi & E. K. Longmire**
- 546 On the modulating effect of three-dimensional instabilities in open cavity flows  
**J. Basley, L. R. Pastur, F. Lusseyran, J. Soria & N. Delprat**
- 579 Large eddy simulation of flow over a twisted cylinder at a subcritical Reynolds number  
**J. H. Jung & H. S. Yoon**

Contents continued on inside back cover.

- 612 The effect of Reynolds number on mixing in Kelvin–Helmholtz billows  
**M. Rahmani, G. A. Lawrence & B. R. Seymour**
- 642 Fully nonlinear long-wave models in the presence of vorticity  
**A. Castro & D. Lannes**
- 676 The breaking of transient inertio-gravity waves in a shear flow using the Gaussian beam approximation  
**C. Rodas & M. Pulido**
- 701 Dynamically consistent entrainment laws for depth-averaged avalanche models  
**D. Issler**
- 739 Finite-size effects in parametric subharmonic instability  
**B. Bourget, H. Scolan, T. Dauxois, M. Le Bars, P. Odier & S. Joubaud**
- 751 Flow past a transversely rotating sphere at Reynolds numbers above the laminar regime  
**E. K. W. Poon, A. S. H. Ooi, M. Giacobello, G. Iaccarino & D. Chung**

### JFM Rapids (online only)

- R1 Response of a laboratory aquifer to rainfall  
**A. Guérin, O. Devauchelle & E. Lajeunesse**
- R2 Asymmetric gravity–capillary solitary waves on deep water  
**Z. Wang, J.-M. Vanden-Broeck & P. A. Milewski**
- R3 Settling regimes of inertial particles in isotropic turbulence  
**G. H. Good, P. J. Ireland, G. P. Bewley, E. Bodenschatz, L. R. Collins & Z. Warhaft**

*S* indicates supplementary data or movies available online.