

CAMBRIDGE

JOURNALS

# JFM ARCHIVE

**Journal of  
Fluid Mechanics**  
Digital Archive  
1956–1996

*Vital research from  
the definitive source*

The JFM Digital Archive contains every article from the first 40 years of the journal, scanned and digitised to the highest standards.

Please speak to your librarian about gaining access.

**[journals.cambridge.org/jfm](https://journals.cambridge.org/jfm)**



**CAMBRIDGE**  
UNIVERSITY PRESS



CAMBRIDGE

JOURNALS

**JFM FAST  
TRACK HAS  
EVOLVED**

# JFM RAPIDS

.....

- Faster publication
- Greater visibility for papers
- Freely available to all for the first year

For more information visit

**[journals.cambridge.org/rapids](https://journals.cambridge.org/rapids)**



**CAMBRIDGE  
UNIVERSITY PRESS**

# European Journal of Applied Mathematics

## Co-Editors-in-Chief

S. D. Howison, *University of Oxford, UK*

A. A. Lacey, *DPMMMS, Heriot-Watt University, UK*

M. J. Ward, *University of British Columbia, Canada*

Since 2008 *EJAM* surveys have been expanded to cover Applied and Industrial Mathematics. Coverage of the journal has been strengthened in probabilistic applications, while still focusing on those areas of applied mathematics inspired by real-world applications, and at the same time fostering the development of theoretical methods with a broad range of applicability. Survey papers contain reviews of emerging areas of mathematics, either in core areas or with relevance to users in industry and other disciplines. Research papers may be in any area of applied mathematics, with special emphasis on new mathematical ideas, relevant to modelling and analysis in modern science and technology, and the development of interesting mathematical methods of wide applicability.

## Price information

is available at: <http://journals.cambridge.org/ejm>

## Free email alerts

Keep up-to-date with new material – sign up at  
<http://journals.cambridge.org/ejm-alerts>



## European Journal of Applied Mathematics

is available online at:  
<http://journals.cambridge.org/ejm>

## To subscribe contact Customer Services

### in Cambridge:

Phone +44 (0)1223 326070

Fax +44 (0)1223 325150

Email [journals@cambridge.org](mailto:journals@cambridge.org)

### in New York:

Phone +1 (845) 353 7500

Fax +1 (845) 353 4141

Email

[subscriptions\\_newyork@cambridge.org](mailto:subscriptions_newyork@cambridge.org)

For free online content visit:  
<http://journals.cambridge.org/ejm>



**CAMBRIDGE**  
UNIVERSITY PRESS

## JFM Rapids (online only)

- R1 Linear stability analysis for *monami* in a submerged seagrass bed  
**R. Singh, M. M. Bandi, A. Mahadevan & S. Mandre**
- R2 The stability of a rising droplet: an inertialess non-modal growth mechanism  
**G. Gallino, L. Zhu & F. Gallaire**
- R3 Preferred interparticle spacings in trains of particles in inertial microchannel flows  
**S. Kahkeshani, H. Haddadi & D. Di Carlo**
- R4 Universal rescaling of drop impact on smooth and rough surfaces  
**J. B. Lee, N. Laan, K. G. de Bruin, G. Skantzaris, N. Shahidzadeh, D. Derome, J. Carmeliet & D. Bonn**
- R5 Experimental observation of a near-motion-trapped mode: free motion in heave with negligible radiation  
**H. A. Wolgamot, P. H. Taylor, R. Eatock Taylor, T. S. van den Bremer, A. C. Raby & C. Whittaker**
- R6 Intermittency caused by compressibility: a Lagrangian study  
**Y. Yang, J. Wang, Y. Shi, Z. Xiao, X. T. He & S. Chen**

S indicates supplementary data or movies available online.

- 1 The fate of random initial vorticity distributions for two-dimensional Euler equations on a sphere  
**P. K. Newton**
- 5 Experimental study of rotating-disk boundary-layer flow with surface roughness  
**S. Imayama, P. H. Alfredsson & R. J. Lingwood**
- 29 Flutter instability of a thin flexible plate in a channel  
**K. Shoele & R. Mittal**
- 47 Universality of finger growth in two-dimensional Rayleigh–Taylor and Richtmyer–Meshkov instabilities with all density ratios  
**Q. Zhang & W. Guo**
- 62 Theoretical model of scattering from flow ducts with semi-infinite axial liner splices  
**X. Liu, H. B. Jiang, X. Huang & S. Y. Chen**
- 84 Streaming-potential phenomena in the thin-Debye-layer limit. Part 3. Shear-induced electroviscous repulsion  
**O. Schnitzer & E. Yariv**
- 110 Rheology of a dense suspension of spherical capsules under simple shear flow  
**D. Matsunaga, Y. Imai, T. Yamaguchi & T. Ishikawa**
- S 128 Dynamics of shear-induced migration of spherical particles in oscillatory pipe flow  
**B. Snook, J. E. Butler & É. Guazzelli**
- 154 Linear and nonlinear receptivity of the boundary layer in transonic flows  
**A. I. Ruban, T. Bernots & M. A. Kravtsova**
- 190 Periodic saltation over hydrodynamically rough beds: aeolian to aquatic  
**D. Berzi, J. T. Jenkins & A. Valance**
- 210 Dynamics of stratified turbulence decaying from a high buoyancy Reynolds number  
**A. Maffioli & P. A. Davidson**
- 234 On the universality of local dissipation scales in turbulent channel flow  
**S. C. C. Bailey & B. M. Witte**
- 253 Complete self-preservation along the axis of a circular cylinder far wake  
**S. L. Tang, R. A. Antonia, L. Djenidi & Y. Zhou**
- 275 Boundary layer structure in a rough Rayleigh–Bénard cell filled with air  
**O. Liot, J. Salort, R. Kaiser, R. du Puits & F. Chillà**
- 294 Scale-to-scale energy and enstrophy transport in two-dimensional Rayleigh–Taylor turbulence  
**Q. Zhou, Y.-X. Huang, Z.-M. Lu, Y.-L. Liu & R. Ni**
- 309 Uniform momentum zones in turbulent boundary layers  
**C. M. de Silva, N. Hutchins & I. Marusic**
- 332 Particle dispersion by nonlinearly damped random waves  
**O. Bühler & Y. Guo**

Contents continued on inside back cover.