Access leading journals in your subject

Cambridge Core

Explore today at cambridge.org/core

Cambridge Core



Mathematics

Books and Journals from Cambridge University Press

Cambridge is a world leading publisher in pure and applied mathematics, with an extensive programme of high quality books and journals that reaches into every corner of the subject.

Our catalogue reflects not only the breadth of mathematics but also its depth, with titles for undergraduate students, for graduate students, for researchers and for users of mathematics.

We are proud to include world class researchers and influential educators amongst our authors, and also to publish in partnership with leading mathematical societies.

For further details visit: cambridge.org/core-mathematics

> 透透 CAMBRIDGE 资 UNIVERSITY PRESS

Cambridge **Core**

https://doi.org/10.1017/jfm.2019.369 Published online by Cambridge University Press

- 587 Out-of-plane buckling in two-dimensional glass drawing
 D. O'Kiely, C. J. W. Breward,
 I. M. Griffiths, P. D. Howell & U. Lange
- 610 Non-Boussinesq gravity currents and surface waves generated by lock release in a circular-section channel: theoretical and experimental investigation

L. Chiapponi, M. Ungarish, D. Petrolo, V. Di Federico & S. Longo

634 Deformation characteristics of a single droplet driven by a piezoelectric nozzle of the drop-on-demand inkjet systemS. Wang, Y. Zhong & H. Fang

JFM Rapids (online only)

- R1 Effect of background mean flow on PSI of internal wave beamsB. Fan & T. R. Akylas
- *S* R2 Stability analysis of a particle band on the fluid–fluid interface
 - A. Hooshanginejad, B. C. Druecke & S. Lee
 - R3 Dip-coating with a particulate suspension S. Palma & H. Lhuissier
 - R4 Nu ~ Ra^{1/2} scaling enabled by multiscale wall roughness in Rayleigh–Bénard turbulence
 X. Zhu, R. J. A. M. Stevens, O. Shishkina,
 R. Verzicco & D. Lohse

S indicates supplementary data or movies available online.

646 Helicoidal particles in turbulent flows with multi-scale helical injectionL. Biferale, K. Gustavsson &

R. Scatamacchia

674 A Zel'dovich–von Neumann–Döring-like detonation wave in a multi-temperature mixture

D. Madjarević, S. Simić & A. J. Soares

- 706 Amplification of random wave run-up on the front face of a box driven by tertiary wave interactions
 W. Zhao, P. H. Taylor, H. A. Wolgamot & R. Eatock Taylor
- S 726 Hydroelastic effects during the fast lifting of a disc from a water surface
 P. Vega-Martínez, J. Rodríguez-Rodríguez, T. I. Khabakhpasheva & A. A. Korobkin
- S R5 Turbulent Rayleigh–Bénard convection in an annular cell
 X. Zhu, L.-F. Jiang, Q. Zhou & C. Sun
- S R6 Fractal features of turbulent/non-turbulent interface in a shock wave/turbulent boundary-layer interaction flow
 Y. Zhuang, H. Tan, W. Wang, X. Li & Y. Guo
 - R7 Diffusion of inertia-gravity waves by geostrophic turbulence
 H. A. Kafiabad, M. A. C. Savva & J. Vanneste

ISSN 0022-1120

8<u>69</u>

Journal of Fluid Mechanics

1 Effect of wind turbine nacelle on turbine wake dynamics in large wind farms

D. Foti, X. Yang, L. Shen & F. Sotiropoulos

- 27 Non-periodic phase-space trajectories of roughness-driven secondary flows in high- Re_{τ} boundary layers and channels **W. Anderson**
- 85 Pressure-driven gas flow in viscously deformable porous media: application to lava domes

D. M. Hyman, M. I. Bursik & E. B. Pitman

- 110 Mass transfer around bubbles flowing in cylindrical microchannels
 J. Rivero-Rodriguez & B. Scheid
- 143 A dynamical systems view of granular flow: from monoclinal flood waves to roll waves
 D. Razis, G. Kanellopoulos & K. van der Weele
- 182 A comparative study of the velocity and vorticity structure in pipes and boundary layers at friction Reynolds numbers up to 10⁴
 S. Zimmerman, J. Philip,
 J. Monty, A. Talamelli, I. Marusic,
 B. Ganapathisubramani, R. J. Hearst,
 G. Bellani, R. Baidya, M. Samie, X. Zheng,
 E. Dogan, L. Mascotelli & J. Klewicki
- 214 Energetics and mixing in buoyancy-driven near-bottom stratified flow
 P. Puthan, M. Jalali, V. K. Chalamalla & S. Sarkar
- 238 Weakly nonlinear theory for a gate-type curved array in wavesS. Michele, E. Renzi & P. Sammarco
- 264 Drag of a heated sphere at low Reynolds numbers in the absence of buoyancyS. Ganguli & S. K. Lele
- 292 Multiphase plumes in a stratified ambient N. Mingotti & A. W. Woods

Contents continued on inside back cover.

S 313 Retrogressive failure of a static granular layer on an inclined plane

A. S. Russell, C. G. Johnson, A. N. Edwards, S. Viroulet, F. M. Rocha & J. M. N. T. Gray

- 341 Direct numerical simulations of hypersonic boundary-layer transition for a flared cone: fundamental breakdown
 C. Hader & H. F. Fasel
- 385 A new insight into understanding the Crow and Champagne preferred mode: a numerical study

A. Boguslawski, K. Wawrzak & A. Tyliszczak

- 417 A long-wave estimation for the damping coefficient at a flat water–water vapour interface with a phase transitionV. V. Konovalov & T. P. Lyubimova
- 439 Subharmonic resonant interaction of a gravity–capillary progressive axially symmetric wave with a radial cross-wave M. Shen & Y. Liu
- 468 Stable and unstable miscible displacements in layered porous mediaJ. S. Nijjer, D. R. Hewitt & J. A. Neufeld
- 500 Comparison between super-hydrophobic, liquid infused and rough surfaces: a direct numerical simulation study
 I. Arenas, E. García, M. K. Fu, P. Orlandi, M. Hultmark & S. Leonardi
- 526 Non-canonical Hamiltonian structure and Poisson bracket for two-dimensional hydrodynamics with free surface
 A. I. Dyachenko, P. M. Lushnikov & V. E. Zakharov
- 553 Reynolds-averaged Navier–Stokes equations with explicit data-driven Reynolds stress closure can be ill-conditioned
 J. Wu, H. Xiao, R. Sun & Q. Wang

Cambridge Core For further information about this journal please go to the journal web site at cambridge.org/flm



MIX Paper from responsible sources FSC® C007785

