

The new home of Cambridge Journals cambridge.org/core

Cambridge Core



https://doi.org/10.1017/jfm.2017.60 Published online by Cambridge University Press

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

Cambridge **Core**



- 594 An invariant representation of mean inertia: theoretical basis for a log law in turbulent boundary layers
 - C. Morrill-Winter, J. Philip & J. Klewicki
- 618 Exact solutions for hydrodynamic interactions of two squirming spheres
 - D. Papavassiliou & G. P. Alexander
- S 647 Impact of ultra-viscous drops: air-film gliding and extreme wetting
 - K. Langley, E. Q. Li & S. T. Thoroddsen
 - 667 Comparison between passive scalar and velocity fields in a turbulent cylinder wake J. G. Chen, T. M. Zhou, R. A. Antonia & Y. Zhou
 - 695 Internal wave focusing by a horizontally oscillating torus
 - E. V. Ermanyuk, N. D. Shmakova & J.-B. Flór
 - 716 Wavelet decomposition of hydrodynamic and acoustic pressures in the near field of the jet M. Mancinelli, T. Pagliaroli, A. Di Marco,
 - R. Camussi & T. Castelain
 750 Equilibrium radial positions of neutrally buoyant spherical particles over the circular cross-section in Poiseuille flow
 - Y. Morita, T. Itano & M. Sugihara-Seki
 - 768 Experimental study of oscillating-grid turbulence interacting with a solid boundary
 - M. W. McCorquodale & R. J. Munro
- S 799 Sheltering the perturbed vortical layer of electroconvection under shear flow
 - R. Kwak, V. S. Pham & J. Han
 - 824 On reduced models for gravity waves generated by moving bodies
 - P. H. Trinh
 - 860 Inertial regimes in a curved electromagnetically forced flow
 - J. Boisson, R. Monchaux & S. Aumaître
- JFM Rapids (online only)
 - R1 Asymptotic solution for high-vorticity regions in incompressible three-dimensional Euler equations
 - D. S. Agafontsev, E. A. Kuznetsov & A. A. Mailybaev
 - R2 Asymptotic theory for torsional convection in rotating fluid spheres
 - K. Zhang, K. Lam & D. Kong
 - R3 The effect of angular misalignment on low-frequency axisymmetric wake instability
 - V. Gentile, B. W. van Oudheusden,
 - F. F. J. Schrijer & F. Scarano

- 882 Pairwise interaction extended point-particle model for a random array of monodisperse spheres
 - G. Akiki, T. L. Jackson & S. Balachandar
- 929 Viscoplastic boundary layersN. J. Balmforth, R. V. Craster, D. R. Hewitt,S. Hormozi & A. Maleki
- 955 Steady and transient response of a laminar separation bubble to controlled disturbancesS. Yarusevych & M. Kotsonis
- 991 Magnetic torque-induced suppression of van-der-Waals-driven thin liquid film rupture E. Kirkinis
- 1007 Free surface over a horizontal shear layer: vorticity generation and air entrainment mechanisms
 - M. A. André & P. M. Bardet
- S 1045 Speed and structure of turbulent fronts in pipe flow
 - B. Song, D. Barkley, B. Hof & M. Avila
 - 1060 Flow and streaming potential of an electrolyte in a channel with an axial temperature gradient
 - M. Dietzel & S. Hardt
- S 1112 Quantifying performance in the medusan mechanospace with an actively swimming three-dimensional jellyfish model
 - A. P. Hoover, B. E. Griffith & L. A. Miller
 - 1156 Spectral analysis of energy transfer in turbulent flows laden with heated particles H. Pouransari, H. Kolla, J. H. Chen &
 - H. Pouransari, H. Kolla, J. H. Chen & A. Mani
 - 1176 Impact of height heterogeneity on canopy turbulence
 - A. M. Hamed, M. J. Sadowski, H. M. Nepf & L. P. Chamorro
 - R4 The role of multidimensional instabilities in direct initiation of gaseous detonations in free space
 - H. Shen & M. Parsani
 - R5 Experimental observation of viscoelastic fluid–structure interactions
 - A. A. Dey, Y. Modarres-Sadeghi & J. P. Rothstein

nttps://doi.org/10.1017/jfm.2017.60 Published online by Cambridge University Press

Journal of Fluid Mechanics

- Nonlinear dynamics and hydrodynamic feedback in two-dimensional double cavity flow
 - F. Tuerke, L. Pastur, Y. Fraigneau, D. Sciamarella, F. Lusseyran & G. Artana
- 23 A large-eddy simulation on a deep-stalled aerofoil with a wavy leading edge
 R. Pérez-Torró & J. W. Kim
- 53 Viscous and inviscid simulations of the start-up vortex

P. Luchini & R. Tognaccini

- 70 Shock-wave reflections over double-concave cylindrical reflectors
 - V. Soni, A. Hadjadj, A. Chaudhuri & G. Ben-Dor
- 85 Flow regimes for a square cross-section cylinder in oscillatory flow
 - F. Tong, L. Cheng, C. Xiong, S. Draper, H. An & X. Lou
- 110 On the mechanism of high-incidence lift generation for steadily translating low-aspect-ratio wings

A. C. DeVoria & K. Mohseni

- 127 Experimental and numerical investigation of flames stabilised behind rotating cylinders: interaction of flames with a moving wall P. Xavier, A. Ghani, D. Mejia, M. Miguel-Brebion, M. Bauerheim,
- 152 Slip flow past a gas-liquid interface with embedded solid particles

A. Vidal & L. Botto

L. Selle & T. Poinsot

- S 175 Extreme motion and response statistics for survival of the three-float wave energy converter M4 in intermediate water depth H. Santo, P. H. Taylor, E. Carpintero Moreno, P. Stansby, R. Eatock Taylor, L. Sun & J. Zang
 - 205 Stochastic theory and direct numerical simulations of the relative motion of high-inertia particle pairs in isotropic turbulence
 - R. Dhariwal, S. L. Rani & D. L. Koch

Contents continued on inside back cover.

S 250 Multiple instability of layered stratified plane Couette flow

T. S. Eaves & C. P. Caulfield

279 Free motion of a body in a boundary layer or channel flow

F. T. Smith

301 Optimal undulatory swimming for a single fish-like body and for a pair of interacting swimmers

A. P. Maertens, A. Gao & M. S. Triantafyllou

346 Transition to bluff-body dynamics in the wake of vertical-axis wind turbines

D. B. Araya, T. Colonius & J. O. Dabiri

382 Drag reduction of circular cylinders by porous coating on the leeward side

K. Klausmann & B. Ruck

- 412 Cross-stream stereoscopic particle image velocimetry of a modified turbulent boundary layer over directional surface pattern K. Kevin, J. P. Monty, H. L. Bai,
 - G. Pathikonda, B. Nugroho, J. M. Barros, K. T. Christensen & N. Hutchins
- 436 Forecasting long-lived Lagrangian vortices from their objective Eulerian footprints M. Serra & G. Haller
- 458 The role of global curvature on the structure and propagation of weakly unstable cylindrical detonations

W. Han, W. Kong, Y. Gao & C. K. Law

482 Vortex-induced rotations of a rigid square cylinder at low Reynolds numbers

S. Ryu & G. Iaccarino

508 Localisation of Rayleigh–Bloch waves and damping of resonant loads on arrays of vertical cylinders

L. G. Bennetts, M. A. Peter & F. Montiel

528 On the secondary instabilities of transient growth in Couette flow

M. Karp & J. Cohen

558 Spherical convective dynamos in the rapidly rotating asymptotic regime

J. Aubert, T. Gastine & A. Fournier

Cambridge Core

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



