



Access
leading
journals in
your subject

Cambridge Core

Explore today at [cambridge.org/core](https://www.cambridge.org/core)

Cambridge **Core**



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](https://www.cambridge.org/core-mathematics)

Cambridge
Core



CAMBRIDGE
UNIVERSITY PRESS

cotg u

- 708 Transfer functions for flow predictions in wall-bounded turbulence
K. Sasaki, R. Vinuesa, A. V. G. Cavalieri, P. Schlatter & D. S. Henningson
- 746 Perturbative corrections for the scaling of heat transport in a Hele-Shaw geometry and its application to geological vertical fractures
J. A. Letelier, N. Mujica & J. H. Ortega
- S 768 The cell-free layer in simulated microvascular networks
P. Balogh & P. Bagchi
- S 807 Shock-induced energy conversion of entropy in non-ideal fluids
E. Toubert & N. Alferez
- 848 Study of asymmetrical shock wave reflection in steady supersonic flow
J. Lin, C.-Y. Bai & Z.-N. Wu
- 876 Experiments on wave propagation in grease ice: combined wave gauges and particle image velocimetry measurements
J. Rabault, G. Sutherland, A. Jensen, K. H. Christensen & A. Marchenko
- 899 Backflow from a model fracture network: an asymptotic investigation
A. Dana, G. G. Peng, H. A. Stone, H. E. Huppert & G. Z. Ramon
- 925 Experimental study of inertial particles clustering and settling in homogeneous turbulence
A. J. Petersen, L. Baker & F. Coletti
- 971 Dynamo saturation down to vanishing viscosity: strong-field and inertial scaling regimes
K. Seshasayanan & B. Gallet
- 995 Non-equilibrium thermal transport and entropy analyses in rarefied cavity flows
V. Venugopal, D. S. Praturi & S. S. Girimaji
- S 1026 Application of the compressible I -dependent rheology to chute and shear flow instabilities
J. S. Fannon, I. R. Moyles & A. C. Fowler
- 1058 Impingement of high-speed cylindrical droplets embedded with an air/vapour cavity on a rigid wall: numerical analysis
W. Wu, B. Wang & G. Xiang
- 1088 A three-dimensional model of flagellar swimming in a Brinkman fluid
N. Ho, K. Leiderman & S. Olson
- 1125 Theory for the rheology of dense non-Brownian suspensions: divergence of viscosities and μ - J rheology
K. Suzuki & H. Hayakawa
- 1177 Viscous-fingering mechanisms under a peeling elastic sheet
G. G. Peng & J. R. Lister
- 1208 BOOK REVIEW

JFM Rapids (online only)

- R1 Subcritical turbulent condensate in rapidly rotating Rayleigh–Bénard convection
B. Favier, C. Guervilly & E. Knobloch
- R2 Upstream vortex and elastic wave in the viscoelastic flow around a confined cylinder
B. Qin, P. F. Salipante, S. D. Hudson & P. E. Arratia
- R3 Statistical state dynamics analysis of buoyancy layer formation via the Phillips mechanism in two-dimensional stratified turbulence
J. G. Fitzgerald & B. F. Farrell

S indicates supplementary data or movies available online.

- 1 Meso-scale transport in sticky granular fluids
S. Luding
- 5 The acoustic impedance of a laminar viscous jet through a thin circular aperture
D. Fabre, R. Longobardi, P. Bonnefis & P. Luchini
- 45 Sensitivity analysis and passive control of the secondary instability in the wake of a cylinder
F. Giannetti, S. Camarri & V. Citro
- 73 Forced synchronization and asynchronous quenching of periodic oscillations in a thermoacoustic system
S. Mondal, S. A. Pawar & R. I. Sujith
- 97 Viscous fingering phenomena in the early stage of polymer membrane formation
M. Hopp-Hirschler, M. S. Shadloo & U. Nieken
- S 141 Curvature-induced deformations of the vortex rings generated at the exit of a rectangular duct
A. Ghasemi, B. A. Tuna & X. Li
- S 181 Passive scalar dispersion in the near wake of a multi-scale array of rectangular cylinders
P. Baj & O. R. H. Buxton
- 221 Restricted nonlinear model for high- and low-drag events in plane channel flow
F. Alizard & D. Biau
- 244 Scale invariance in finite Reynolds number homogeneous isotropic turbulence
L. Djenidi, R. A. Antonia & S. L. Tang
- S 273 Flow-induced motions of flexible plates: fluttering, twisting and orbital modes
Y. Jin, J.-T. Kim, S. Fu & L. P. Chamorro
- 286 Path instabilities of streamlined bodies
T. Guillet, M. Coux, D. Quéré & C. Clanet
- 303 Mean flow generation by three-dimensional nonlinear internal wave beams
F. Beckebanze, K. J. Raja & L. R. M. Maas
- 327 On drag reduction scaling and sustainability bounds of superhydrophobic surfaces in high Reynolds number turbulent flows
A. Rastegari & R. Akhavan
- 348 Lagrangian transport by vertically confined internal gravity wavepackets
T. S. van den Bremer, H. Yassin & B. R. Sutherland
- 381 Resolving the horizontal direction of internal tide generation
F. Pollmann, J. Nycander, C. Eden & D. Olbers
- S 408 Dynamics of a large population of red blood cells under shear flow
C. Minetti, V. Audemar, T. Podgorski & G. Couplier
- 449 Laminar spread of a circular liquid jet impinging axially on a rotating disc
B. Scheichl & A. Kluwick
- 490 Condensates in thin-layer turbulence
A. van Kan & A. Alexakis
- 519 Penetration of boundary-driven flows into a rotating spherical thermally stratified fluid
G. A. Cox, C. J. Davies, P. W. Livermore & J. Singleton
- 554 Time-dependent lift and drag on a rigid body in a viscous steady linear flow
F. Candelier, B. Mehlig & J. Magnaudet
- S 596 Viscoplastic water entry
M. Jalaal, D. Kemper & D. Lohse
- 614 Spatio-temporal proper orthogonal decomposition of turbulent channel flow
S. Derebail Muralidhar, B. Podvin, L. Mathelin & Y. Fraigneau
- 640 Multi-point Monin–Obukhov similarity in the convective atmospheric surface layer using matched asymptotic expansions
C. Tong & M. Ding
- 670 Reduction of pressure losses and increase of mixing in laminar flows through channels with long-wavelength vibrations
J. M. Floryan & S. Zandi

Contents continued on inside back cover.

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

CAMBRIDGE
UNIVERSITY PRESS