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
JFM RAPIDS

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

For more information visit
journals.cambridge.org/rapids
10 April 2016

Journal of Fluid Mechanics

S 1 High-speed trains: in microchannels?
J. F. Morris

5 Fluid flow over and through a regular bundle of rigid fibres
G. A. Zampogna & A. Bottaro

36 Effect of the eigenvalues of the velocity gradient tensor on particle collisions
V. E. Perrin & H. J. J. Jonker

50 A universal three-dimensional instability of the wakes of two-dimensional bluff bodies
A. Rao, M. C. Thompson & K. Houigian

S 67 Transition to turbulence in an oscillatory flow over a rough wall
M. Mazzuoli & G. Vittori

98 Numerical and theoretical investigation of pulsatile turbulent channel flows
C. Weng, S. Boij & A. Hanifi

134 On thin evaporating drops: When is the $d^3$-law valid?
M. A. Saxton, J. P. Whiteley, D. Vella & J. M. Oliver

168 Evaporation effects in elastocapillary aggregation
A. Hadjittofis, J. R. Lister, K. Singh & D. Vella

186 Early spray development at high gas density: hole, ligament and bridge formations
D. Jarrahbashi, W. A. Sirignano, P. P. Popov & F. Hussain

232 DNS study of particle-bed-turbulence interactions in an oscillatory wall-bounded flow
C. D. Ghodke & S. V. Apte

252 Turbulent flow of a fluid with anisotropic viscosity
T. Grünberg & T. Rössen

274 Evolution of Lagrangian coherent structures in a cylinder-wake disturbed flat plate boundary layer
G.-S. He, C. Pan, L.-H. Feng, Q. Gao & J.-J. Wang

307 High-fidelity simulations of bubble, droplet and spray formation in breaking waves
Z. Wang, J. Yang & F. Stern

328 Weakly nonlinear stability analysis of subcritical electrohydrodynamic flow subject to string unipolar injection
M. Zhang

364 Combining an obstacle and electrically driven vortices to enhance heat transfer in a quasi-two-dimensional MHD duct flow
A. H. A. Hamid, W. K. Hussain & G. J. Sheard

397 Numerical analysis of the Rayleigh–Taylor instability in an electric field
Q. Yang, B. Q. Li, Z. Zhao, J. Shao & F. Xu

435 Shared dynamical features of smooth- and rough-wall boundary-layer turbulence
R. L. Ebner, F. Mehdi & J. C. Klewicki

470 A numerical investigation of the wake of an axisymmetric body with appendages
A. Posu & E. Balaras

499 The behaviour of Tollmien–Schlichting waves undergoing small-scale localised distortions
H. Xu, S. J. Sherwin, P. Hall & X. Wu

Contents continued on inside back cover.