

## INDEX

- Assi, G. R. S., Bearman, P. W. & Meneghini, J. R.** On the wake-induced vibration of tandem circular cylinders: the vortex interaction excitation mechanism, 365–401
- Bearman, P. W.** *See* Assi, Bearman & Meneghini
- Cebron, D.** *See* Herreman, Cebron, Le Dizès & Le Gal
- Chu, K. W.** *See* Zhou, Kuang, Chu & Yu
- Chung, D. & McKeon, B. J.** Large-eddy simulation of large-scale structures in long channel flow, 341–364
- Cowen, E. A.** *See* Liao & Cowen
- Davis, A. M. J. & Lauga, E.** Hydrodynamic friction of fakir-like superhydrophobic surfaces, 402–411
- Davis, M. J., Gratton, M. B. & Davis, S. H.** Suppressing van der Waals driven rupture through shear, 522–539
- Davis, S. H.** *See* Davis, Gratton & Davis
- Davitian, J., Getsinger, D., Hendrickson, C. & Karagozian, A. R.** Transition to global instability in transverse-jet shear layers, 294–315
- Deane, G. B.** *See* Martínez-Bazán, Rodríguez-Rodríguez, Deane, Montañes & Lasheras
- Dodd, N.** *See* Kelly & Dodd
- Dong, G.** *See* Ma, Dong, Perlin, Ma, Wang & Xu
- Feuillebois, F.** *See* Mongruel, Lamriben, Yahiaoui & Feuillebois
- Getsinger, D.** *See* Davitian, Getsinger, Hendrickson & Karagozian
- Gratton, M. B.** *See* Davis, Gratton & Davis
- Hall, P. & Sherwin, S.** Streamwise vortices in shear flows: harbingers of transition and the skeleton of coherent structures, 178–205
- Haugen, N. E. L. & Kragset, S.** Particle impaction on a cylinder in a crossflow as function of Stokes and Reynolds numbers, 239–261
- Hendrickson, C.** *See* Davitian, Getsinger, Hendrickson & Karagozian
- Herreman, W., Cebron, D., Le Dizès, S. & Le Gal, P.** Elliptical instability in rotating cylinders: liquid metal experiments under imposed magnetic field, 130–158
- Huang, W.-X.** *See* Kim, Huang & Sung
- Kaplan, C. R.** *See* Kessler, Oran & Kaplan
- Karagozian, A. R.** *See* Davitian, Getsinger, Hendrickson & Karagozian
- Kelly, D. M. & Dodd, N.** Beach-face evolution in the swash zone, 316–340
- Kessler, D. A., Oran, E. S. & Kaplan, C. R.** Towards the development of a multiscale, multiphysics method for the simulation of rarefied gas flows, 262–293
- Kim, S., Huang, W.-X. & Sung, H. J.** Constructive and destructive interaction modes between two tandem flexible flags in viscous flow, 511–521
- Kragset, S.** *See* Haugen & Kragset
- Kuang, S. B.** *See* Zhou, Kuang, Chu & Yu
- Lamriben, C.** *See* Mongruel, Lamriben, Yahiaoui & Feuillebois
- Lasheras, J. C.** *See* Martínez-Bazán, Rodríguez-Rodríguez, Deane, Montañes & Lasheras
- Lauga, E.** *See* Davis & Lauga

- Le Dizès, S.** *See* Herreman, Cebron, Le Dizès & Le Gal
- Le Gal, P.** *See* Herreman, Cebron, Le Dizès & Le Gal
- Liao, Q. & Cowen, E. A.** Relative dispersion of a scalar plume in a turbulent boundary layer, 412–445
- Ma, X.** *See* Ma, Dong, Perlin, Ma, Wang & Xu
- Ma, Y., Dong, G., Perlin, M., Ma, X., Wang, G. & Xu, J.** Laboratory observations of wave evolution, modulation and blocking due to spatially varying opposing currents, 108–129
- Martínez-Bazán, C., Rodríguez-Rodríguez, J., Deane, G. B., Montañes, J. L. & Lasheras, J. C.** Considerations on bubble fragmentation models, 159–177
- McKeon, B. J.** *See* Chung & McKeon
- Meneghini, J. R.** *See* Assi, Bearman & Meneghini
- Mongruel, A., Lamriben, C., Yahiaoui, S. & Feuillebois, F.** The approach of a sphere to a wall at finite Reynolds number, 229–238
- Montañes, J. L.** *See* Martínez-Bazán, Rodríguez-Rodríguez, Deane, Montañes & Lasheras
- Nepomnyashchy, A. & Simanovskii, I.** Effect of gravity on the dynamics of non-isothermic ultra-thin two-layer films, 1–31
- Oran, E. S.** *See* Kessler, Oran & Kaplan
- Padoan, P.** *See* Pan & Padoan
- Pan, L. & Padoan, P.** Relative velocity of inertial particles in turbulent flows, 73–107
- Perlin, M.** *See* Ma, Dong, Perlin, Ma, Wang & Xu
- Pullin, D. I.** *See* Yang & Pullin
- Roberts, P. H.** *See* Soward & Roberts
- Rodríguez-Rodríguez, J.** *See* Martínez-Bazán, Rodríguez-Rodríguez, Deane, Montañes & Lasheras
- Roisman, I. V.** On the instability of a free viscous rim, 206–228
- Sherwin, S.** *See* Hall & Sherwin
- Simanovskii, I.** *See* Nepomnyashchy & Simanovskii
- Soward, A. M. & Roberts, P. H.** The hybrid Euler–Lagrange procedure using an extension of Moffatt’s method, 45–72
- Sung, H. J.** *See* Kim, Huang & Sung
- Wang, G.** *See* Ma, Dong, Perlin, Ma, Wang & Xu
- Xu, J.** *See* Ma, Dong, Perlin, Ma, Wang & Xu
- Yahiaoui, S.** *See* Mongruel, Lamriben, Yahiaoui & Feuillebois
- Yang, Y. & Pullin, D. I.** On Lagrangian and vortex-surface fields for flows with Taylor–Green and Kida–Pelz initial conditions, 446–481
- Yu, A. B.** *See* Zhou, Kuang, Chu & Yu
- Zavala Sansón, L.** Solutions of barotropic trapped waves around seamounts, 32–44
- Zhou, Z. Y., Kuang, S. B., Chu, K. W. & Yu, A. B.** Discrete particle simulation of particle–fluid flow: model formulations and their applicability, 482–510

CAMBRIDGE

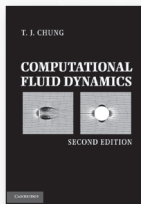
## New and Exciting Titles in Fluid Mechanics!

### Particle Image Velocimetry

RONALD J. ADRIAN  
and JERRY WESTERWEEL

*Cambridge Aerospace Series*

\$125.00; Hb: 978-0-521-44008-0; 562 pp.



SECOND EDITION

### Computational Fluid Dynamics

T. J. CHUNG

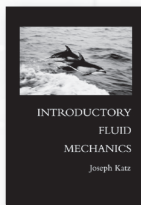
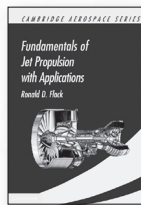
\$145.00; Hb: 978-0-521-76969-3;  
1,030 pp.

### Fundamentals of Jet Propulsion with Applications

RONALD D. FLACK

*Cambridge Aerospace Series*

\$70.00; Pb: 978-0-521-15417-8;  
658 pp.



### Introductory Fluid Mechanics

JOSEPH KATZ

\$135.00; Hb: 978-0-521-19245-3;  
456 pp.

### Micro- and Nanoscale Fluid Mechanics Transport in Microfluidic Devices

BRIAN J. KIRBY

\$125.00; Hb: 978-0-521-11903-0;  
536 pp.



*NOW IN PAPERBACK!*

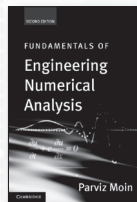
### Advanced Transport Phenomena

Fluid Mechanics and Convective Transport Processes

L. GARY LEAL

*Cambridge Series in Chemical Engineering*

\$90.00; Pb: 978-0-521-17908-9; 936 pp.



SECOND EDITION

### Fundamentals of Engineering Numerical Analysis

PARVIZ MOIN

\$120.00; Hb: 978-0-521-88432-7; 256 pp.  
\$59.00; Pb: 978-0-521-71123-4

### Fluid-Structure Interactions Cross-Flow-Induced Instabilities

MICHAEL PAÏDOUSSIS, STUART PRICE,  
and EMMANUEL DE LANGRE

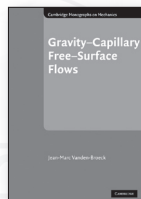
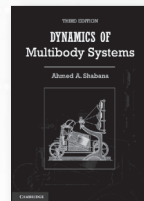
\$125.00; Hb: 978-0-521-11942-9; 396 pp.

THIRD EDITION

### Dynamics of Multibody Systems

AHMED A. SHABANA

\$65.00; Pb: 978-0-521-15422-2; 378 pp.



### Gravity-Capillary Free-Surface Flows

JEAN-MARC VANDEN-BROECK

*Cambridge Monographs on Mechanics*

\$110.00; Hb: 978-0-521-81190-3; 330 pp.

*Prices subject to change.*

[www.cambridge.org/us/engineering](http://www.cambridge.org/us/engineering)  
800.872.7423



CAMBRIDGE  
UNIVERSITY PRESS



- 1 Effect of gravity on the dynamics of non-isothermic ultra-thin two-layer films  
**A. Nepomnyashchy & I. Simanovskii**
- 32 Solutions of barotropic trapped waves around seamounts  
**L. Zavala Sansón**
- 45 The hybrid Euler–Lagrange procedure using an extension of Moffatt’s method  
**A. M. Soward & P. H. Roberts**
- 73 Relative velocity of inertial particles in turbulent flows  
**L. Pan & P. Padoan**
- 108 Laboratory observations of wave evolution, modulation and blocking due to spatially varying opposing currents  
**Y. Ma, G. Dong, M. Perlin, X. Ma, G. Wang & J. Xu**
- 130 Elliptical instability in rotating cylinders: liquid metal experiments under imposed magnetic field  
**W. Herreman, D. Cebon, S. Le Dizès & P. Le Gal**
- 159 Considerations on bubble fragmentation models  
**C. Martínez-Bazán, J. Rodríguez-Rodríguez, G. B. Deane, J. L. Montañes & J. C. Lasheras**
- 178 Streamwise vortices in shear flows: harbingers of transition and the skeleton of coherent structures  
**P. Hall & S. Sherwin**
- 206 On the instability of a free viscous rim  
**I. V. Roisman**
- 229 The approach of a sphere to a wall at finite Reynolds number  
**A. Mongruel, C. Lamriben, S. Yahiaoui & F. Feuillebois**
- 239 Particle impactation on a cylinder in a crossflow as function of Stokes and Reynolds numbers  
**N. E. L. Haugen & S. Kragset**
- 262 Towards the development of a multiscale, multiphysics method for the simulation of rarefied gas flows  
**D. A. Kessler, E. S. Oran & C. R. Kaplan**
- 294 Transition to global instability in transverse-jet shear layers  
**J. Davitian, D. Getsinger, C. Hendrickson & A. R. Karagozian**
- 316 Beach-face evolution in the swash zone  
**D. M. Kelly & N. Dodd**
- 341 Large-eddy simulation of large-scale structures in long channel flow  
**D. Chung & B. J. McKeon**
- 365 On the wake-induced vibration of tandem circular cylinders: the vortex interaction excitation mechanism  
**G. R. S. Assi, P. W. Bearman & J. R. Meneghini**
- 402 Hydrodynamic friction of fakir-like superhydrophobic surfaces  
**A. M. J. Davis & E. Lauga**
- 412 Relative dispersion of a scalar plume in a turbulent boundary layer  
**Q. Liao & E. A. Cowen**
- 446 On Lagrangian and vortex-surface fields for flows with Taylor–Green and Kida–Pelz initial conditions  
**Y. Yang & D. I. Pullin**
- 482 Discrete particle simulation of particle–fluid flow: model formulations and their applicability  
**Z. Y. Zhou, S. B. Kuang, K. W. Chu & A. B. Yu**
- 511 Constructive and destructive interaction modes between two tandem flexible flags in viscous flow  
**S. Kim, W.-X. Huang & H. J. Sung**
- 522 Suppressing van der Waals driven rupture through shear  
**M. J. Davis, M. B. Gratton & S. H. Davis**
- 540 INDEX TO VOLUME 661

### Cambridge Journals Online

For further information about this journal please go to the journal web site at [journals.cambridge.org/flm](http://journals.cambridge.org/flm)



**Mixed Sources**  
Product group from well-managed forests and other controlled sources

Cert no. SA-COC-1527  
[www.fsc.org](http://www.fsc.org)  
© 1996 Forest Stewardship Council

**CAMBRIDGE**  
UNIVERSITY PRESS