

VOLUME 548

10 February 2006

# Journal of Fluid Mechanics

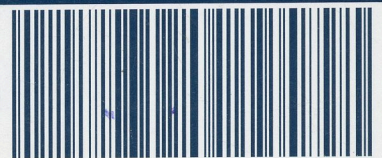
**CAMBRIDGE**  
UNIVERSITY PRESS

G. Stringano & R. Verzicco	Mean flow structure in thermal convection in a cylindrical cell of aspect ratio one half	1
Y. Zhou & M. W. Yiu	Flow structure, momentum and heat transport in a two-tandem-cylinder wake	17
M. Ung�arish	On gravity currents in a linearly stratified ambient: a generalization of Benjamin's steady-state propagation results	49
J. Rodr�guez-Rodr�guez, J. M. Gordillo & C. Mart�nez-Baz�n	Breakup time and morphology of drops and bubbles in a high-Reynolds-number flow	69
A. Riaz, M. Hesse, H. Tchelepi & F. M. Orr Jr	Onset of convection in a gravitationally unstable diffusive boundary layer in porous media	87
T. Makuta, F. Takemura, E. Hihara, Y. Matsumoto & M. Shoji	Generation of micro gas bubbles of uniform diameter in an ultrasonic field	113
S. Bando & F. Takemura	Rise speed of supercritical carbon dioxide spheres in aqueous surfactant solutions	133
H.-Y. Kim & L. Mahadevan	Capillary rise between elastic sheets	141
A. Constantin, D. Sattinger & W. Strauss	Variational formulations for steady water waves with vorticity	151
C. R. Koudella & C. Staquet	Instability mechanisms of a two-dimensional progressive internal gravity wave	165
R. Rubinstein & S. S. Girimaji	Second moment closure near the two-component limit	197
M. G. Blyth, H. Luo & C. Pozrikidis	Stability of axisymmetric core-annular flow in the presence of an insoluble surfactant	207
M. A. Peter, M. H. Meylan & C. M. Linton	Water-wave scattering by a periodic array of arbitrary bodies	237
R. Benzi, L. Biferale, M. Sbragaglia, S. Succi & F. Toschi	Mesosopic modelling of heterogeneous boundary conditions for microchannel flows	257
R. Godoy-Diana, J.-M. Chomaz & C. Donnadieu	Internal gravity waves in a dipolar wind: a wave-vortex interaction experiment in a stratified fluid	281
M. S. Ghidaoui, A. A. Kolyshkin, J. H. Liang, F. C. Chan, Q. Li & K. Xu	Linear and nonlinear analysis of shallow wakes	309
S. Madruga, H. Riecke & W. Pesch	Re-entrant hexagons in non-Boussinesq convection	341
S. Tamano & Y. Morinishi	Effect of different thermal wall boundary conditions on compressible turbulent channel flow at $M=1.5$	361
G. J. Kunkel & I. Marusic	Study of the near-wall-turbulent region of the high-Reynolds-number boundary layer using an atmospheric flow	375
X. Luo, B. Prast, M. E. H. van Dongen, H. W. M. Hoesjmakers & J. Yang	On phase transition in compressible flows: modelling and validation	403
A. McC. Hogg & G. O. Hughes	Shear flow and viscosity in single-layer hydraulics	431
INDEX TO VOLUME 548		444

The Journal of Fluid Mechanics now accepts submissions via Manuscript Central  
Go to [http://www.jfm.damtp.cam.ac.uk/online\\_submission.html](http://www.jfm.damtp.cam.ac.uk/online_submission.html) as an author

**CAMBRIDGE**  
UNIVERSITY PRESS

Cambridge Journals Online  
[journals.cambridge.org](http://journals.cambridge.org)



0022-1120(200602)548;1-X