Indexes to Volume 430 (A)

Author index

- Bassom, A. P. & Hall, P. On the interaction of stationary crossflow vortices and Tollmien—Schlichting waves in the boundary layer on a rotating disc, 25.
- Baulch, D. L., Griffiths, J. F., Johnson, B. & Richter, R. Hydroxyl radical concentrations and reactant temperature profiles during oscillatory ignition of hydrogen: experimental measurements by laser resonance absorption spectroscopy and comparisons with numerical calculations, 151.
- Beard, K. V. See Feng & Beard.
- Berry, M. V. Geometric amplitude factors in adiabatic quantum transitions, 405.
- Berry, M. V. & Howls, C. J. Hyperasymptotics, 653.
- Bonnecaze, R. T. & Brady, J. F. A method for determining the effective conductivity of dispersions of particles, 285.
- Brady, J. F. See Bonnecaze & Brady.
- Brindley, J., Jivraj, N. A., Merkin, J. H. & Scott, S. K. Stationary-state solutions for coupled reaction-diffusion and temperature-conduction equations. I. Infinite slab and cylinder with general boundary conditions, 459.
- Brindley, J., Jivraj, N. A., Merkin, J. H. & Scott, S. K. Stationary-state solutions for coupled reaction-diffusion and temperature-conduction equations. II. Spherical geometry with Dirichlet boundary conditions, 479.
- Burnett, G. A. & Wald, R. M. A conserved current for perturbations of Einstein-Maxwell space-times, 57.
- Carey, A. L. & Murray, M. K. Higher-order tensors, strings and new tensors, 423.
- Cates, A. T. & Crighton, D. G. Nonlinear diffraction and caustic formation, 69.
- Chadwick, P. The behaviour of elastic surface waves polarized in a plane of material symmetry. I. General analysis, 213.
- Chandrasekhar, Subrahmanyan. The Teukolsky-Starobinsky constant for arbitrary spin, 433.
- Chang, H. & Charalampopoulos, T. T. Determination of the wavelength dependence of refractive indices of flame soot, 577.
- Charalampopoulos, T. T. See Chang & Charalampopoulos.
- Chester, W. A general theory for the motion of a body through a fluid at low Reynolds number,
- Crighton, D. G. See Cates & Crighton.
- Davey, A. See Stuart et al.
- DiPrima, R. C. See Stuart et al.
- Doherty, M. F. A topological theory of phase diagrams for multiphase reacting mixtures, 669.
- Eagles, P. M. See Stuart et al.
- Feng, J. Q. & Beard, K. V. Small-amplitude oscillations of electrostatically levitated drops, 133. Forbes, L. K. Limit-cycle behaviour in a model chemical reaction: the Sal'nikov thermokinetic oscillator, 641.
- Gaster, M. The nonlinear phase of wave growth leading to chaos and breakdown to turbulence in a boundary layer as an example of an open system, 3.
- Gilormini, P., Tóth, L.S. & Jonas, J.J. An analytic method for the prediction of odfs with application to the shear of fcc polycrystals, 489.
- Goddard, J. D. Nonlinear elasticity and pressure-dependent wave speeds in granular media, 105.
- Graham, E. B. & Raab, R. E. Light propagation in cubic and other anisotropic crystals, 593.
- Gray, P., Merkin, J. H., Needham, D. J. & Scott, S. K. The development of travelling waves in a simple isothermal chemical system. III. Cubic and mixed autocatalysis, 509.
- Griffiths, J. F. See Baulch et al.
- Grimmett, G. R. & Marstrand, J. M. The supercritical phase of percolation is well behaved, 439.

Hajnal, J. V. Observations of singularities in the electric and magnetic fields of freely propagating microwaves, 413.

Hall. P. See Bassom & Hall.

Harris, K. D. M. See Rennie & Harris.

Howls, C. J. See Berry & Howls.

Huntley, J. M. Crack growth in viscoelastic media: effect of specimen size, 525.

Jivraj, N. A. See Brindley et al.

Johnson, B. See Baulch et al.

Jonas, J. J. See Gilormini et al.

King, J. R. Mathematical analysis of a model for substitutional diffusion, 377.

Lardner, R. W. & Smoczynski, P. A vertical/horizontal splitting algorithm for three-dimensional tidal and storm surge computations, 263.

McGreevy, R. L. & Pusztai, L. The structures of molten salts, 241.

Merkin, J. H. See Brindley et al.; see also Gray et al.

Merkin, J. H. & Needham, D. J. The development of travelling waves in a simple isothermal chemical system. II. Cubic autocatalysis with quadratic and linear decay, 315.

Murray, M. K. See Carey & Murray.

Needham, D. J. See Gray et al.; see also Merkin & Needham.

Price, W. G. See Twizell et al.

Pusztai, L. See McGreevy & Pusztai.

Raab, R. E. See Graham & Raab.

Rennie, A. J. O. & Harris, K. D. M. A mathematical model of one-dimensional inclusion compounds: a new approach towards understanding commensurate and incommensurate behaviour, 615.

Richter, R. See Baulch et al.

Scott, S. K. See Brindley et al.; see also Gray et al.

Smoczynski, P. See Lardner & Smoczynski.

Stuart, J. T., DiPrima, R. C., Eagles, P. M. & Davey, A. On the instability of the flow in a squeeze lubrication film. 347.

Tawil, H. See Whittaker et al.

Taylor, R. See Whittaker & Taylor.

Tóth, L. S. See Gilormini et al.

Twizell, E. H., Wang, Y. & Price, W. G. Chaos-free numerical solutions of reaction—diffusion equations, 541.

Wald, R. M. See Burnett & Wald.

Wang, Y. See Twizell et al.

Whittaker, A. J. & Taylor, R. Thermal transport properties of carbon-carbon fibre composites. III. Mathematical modelling, 199.

Whittaker, A. J., Taylor, R. & Tawil, H. Thermal transport properties of carbon-carbon fibre composites. I. Thermal diffusivity measurements, 167.

Whittaker, A. J., Taylor, R. & Tawil, H. Thermal transport properties of carbon-carbon fibre composites. II. Microstructural characterization, 183.

Subject index

absorption spectroscopy, 151. adiabatic theory, 409. anisotropic elastodynamics, 213. asymptotic analysis, 459, 479. asymptotics, 653. autocatalysis, 315, 509.

bifurcation analysis, 459, 479. birefringence and multipoles, 593. birefringence in crystals, 593. boundary layers, 3. Bruggemann analysis, 199.

catalyst pellet, 459, 479.
caustic formation, 69.
chaos, 3.
chemical equilibrium, 669.
chemical instabilities, 509.
chemical wave propagation, 315.
composite microstructures, 183.
computational fluid dynamics, 263.
conductivity-microstructure relationship, 199.
conserved current, 57.

conserved current, 57.
contrived chaos, 541.
crack growth instability, 525.
critical layers, 25.
crossflow vortices, 25.
crystalline host–guest systems, 615.
crystallite size carbon fibre, 183.
crystallographic textures, 489.

deformation textures, 489. derivative strings, 427. diffusion modelling, 377. divergent series, 653. drops, deformation shapes, 133. drops, electrified, 133. drops, electrostatically levitated, 133. drops, oscillation characteristics, 133.

effective conductivity, 285. Einstein-Maxwell space-times, 57. elastic waves, 105. electromagnetic wave structure, 417. electrovac perturbations, 57. Ewald sums, 285.

failure of polymers, 525. Fisher's equation, 541. Fisher-Kolmogorov equations, 509. fixed-point analyses, 541. Floquet theory, 641. flow, space-dependent, 347. flow, time-dependent, 347. flow, transition, 347. fracture mechanics, 525.

geometric phase, 409. granular media, 105. graphitization, 167. groups of diffeomorphisms, 427.

heterogeneous continua, 105. hydrodynamic stability, 3, 347. hydrodynamical model, 263. hydrogen oxidation, 151. hydroxyl radical measurement, 151.

incommensurate-commensurate systems, 615. interactions, 25. isotopic substitution, 241.

jets, 427.

Kramers-Krönig relations, 577.

large deformations, 489. limit cycle, 641.

matched asymptotic equations, 377. mathematical modelling of solids, 615. matrix crystallite size, 183. microwave fields, 417. microwave measurements, 417. modulated loop scatterer, 417. molten salts, 241. monodisperse systems, 577. Monte Carlo, 241.

neutron diffraction, 241. nonlinear diffraction, 69. nonlinear diffusion, 377. nonlinear waves, 3. numerical shooting method, 641.

one-dimensional inclusion compounds, 615. optical properties, 593. oscillating chemical reaction, 641. oscillations, levitated drops, 133. oscillatory reactions, 151. Oseen approximation, 89.

particle–particle interactions, 285. percolation, 439 perturbations, multiple-parameter, 133. phase behaviour, 669. phase transition, 439 phyla, 427. plane elastic waves, 213. polarization elipses, 417. polycrystals mechanical behaviour, 489. polydisperse systems, 577.

quantum mechanics, 409.

reaction equilibrium, 669. reaction—diffusion equations, 509. reaction—diffusion waves, 315. reactive azeotropes, 669. resurgence, 653. Riccati logistic equation, 541.

Sal'nikov reaction, 641. semiconductor process modelling, 377. shallow-sea model, 263. similarity solutions, 377. singular perturbation, 89. singularities in microwaves, 417. slow flow, 89. smouldering combustion, 459, 479. soot particles, 577. splitting algorithm, 263. stability, 25, 641. stability intervals, 541. stationary-state solutions, 459, 479. structural modelling, 241. structural properties of solids, 615. subsonic surface waves, 213.

supersonic surface waves, 213. surface acoustic waves, 213. suspension properties, 285. symplectic current, 57.

Teukolsky–Starobinsky constant, 433. thermal conductivity modelling, 199. thermal diffusivity, 167. thermal explosion, 459, 479. tidal model, 263. Tollmien–Schlichting waves, 25. topological invariant, 669. transition to turbulence, 3. transonic states, 213. travelling waves, 509. truncation errors, 541. turbulence, 3, 347.

vapour deposited graphite, 167. viscoelastic fracture, 525.

wave system, 347.

zk equation, 69.