

Author Index to Volume 49

- Adler, J.-O.—
See Kuzin, A. 1075
- Agati, G.—
See Troup, G. J. 673
- Agop, M., Busea, C. Gh., Griga, V., Ciubotariu, C., Buzea, C., and Stan, C.—
 Gravitational paramagnetism, diamagnetism and gravitational superconductivity 1063
- Agop, M., Ciubotariu, C., Buzea, C. Gh., Buzea, C., and Ciobanu, B.—
 Physical implications of the gravitational fluxoid 613
- Alexander, N.—
See Amos, K. 633
- Alexander, N., and Amos, K.—
 Role of an electron screened
 Mott-Schwinger interaction in the elastic scattering of neutrons 633
- Amos, K.—
See Karataglidis, S. 645
- Andernach, H.—
See Slee, O. B. 977
- Andersen, N.—
See Bartschat, K. 301
- Annand, J. R. M.—
See Kuzin, A. 1075
- Ashcroft, N. W.—
 Density functional descriptions of classical inhomogeneous fluids 3
- Awd-Allah, H. E. A.—
See Hassan, M. A. 655
- Bachor, H.-A.—
See Hoogerland, M. D. 567
- Baldwin, K. G. H.—
 Experiments in atom optics 855
See Hoogerland, M. D. 567
- Bannerjee, N., and Beesham, A.—
 Brans-Dicke cosmology with causal viscous fluid 899
- Barker, F. C.—
 ^8Be level properties from the low-energy $^7\text{Li}(\text{p}, \gamma_0)^8\text{Be}$ cross section 1081
- Bartschat, K., and Andersen, N.—
 Spin-resolved alignment and orientation effects in atomic collisions 301
- Beesham, A.—
See Bannerjee, N. 899
- Berakdar, J.—
 Incorporation of threshold phenomena in three-body Coulomb continuum wavefunctions 1095
- Berge, L.—
See Stelbovics, A. T. 273
- Borg, G. G.—
 Guided propagation of the Alfvén wave in a tokamak 953
- Bray, I.—
 Calculation of electron scattering on atoms and ions 201
See Bubelev, V. 291
- Brunner, M. J.—
 Recent applications of (e, 2e) techniques 347
- Bubelev, V., Bray, I., Madison, D. H., and Stelbovics, A. T.—
 Principal quantum number dependence for electron-hydrogen collisions 291
- Buckman, S. J. —
See Hoogerland, M. D. 567
 Jacka, M. 515
- Buckman, S. J., and Weigold, E.—
 Introduction to 'Advances in Atomic and Molecular Collisions and Spectroscopy' issue 197
- Bügdorfer, J., Reinhold, C., Hägg, L., and Meyer, F.—
 Interaction of highly charged ions with surfaces 527
- Burrow, P. D., Gallup, G. A., Fabrikant, I. I., and Jordan, K. D.—
 Dissociative attachment studies of halogen containing molecules: Problems, applications and challenges 403
- Buzea, C.—
See Agop, M. 613, 1063
- Buzea, C. Gh.—
See Agop, M. 613, 1063
- Cai, X., Liu, Z.-Y., Chen, X. M., Shen, Z. Y., Ma, X. W., Liu, H. P., and Hou, M. D.—
 The effective charge effects in 2.0–7.0 MeV partially stripped F^{q+} -helium collisions 945
- Cai, Y. Q.—
See Weigold, E. 543
- Canney, S. A.—
See Weigold, E. 543
- Celotta, R. J.—
See McClelland, J. J. 555
- Chandler, G. S., Jayatilaka, D., and Wolff, S. K.—
 Electronic structure from polarised neutron diffraction 261

- Chen, W., Dyrting, S., and Milburn, G. J.—
Nonlinear dynamics in atom optics 777
- Chen, X. M.—
See Cai, X. 945
- Choy, T. C.—
See Derlet, P. M. 589
- Ciobanu, B.—
See Agop, M. 613
- Ciubotariu, C.—
See Agop, M. 613, 1063
- Coplan, M. A., Doering, J. P., Madison, D. H., Moore, J. H., and Pinkás, A. A.—
Electronic structure information from electron impact ionisation experiments 321
- Crawford, G. I.—
See Kuzin, A. 1075
- Dai, X. J.—
Kinetic model of an RF discharge in oxygen 1169
- Das, M. P., and Neilson, D.—
Introduction to 'Atomic and Electron Fluids' issue 1
- Davidson, E. R., and Wang, Y. A.—
Ab initio calculations on excited molecular ions of ethylene and acetylene 247
- Dehmer, J. L.—
See McCormack, E. F. 445
- Dehmer, P. M.—
See McCormack, E. F. 445
- Derlet, P. M., and Choy, T. C.—
Planck's radiation law: A many body theory perspective 589
- de Swiniarski, R.—
See Karataglidis, S. 645
- Dhar, S.—
Electron impact ionisation of metastable 2s-state hydrogen atoms 937
- Doering, J. P.—
See Coplan, M. A. 321
- Dortmans, P. J.—
See Karataglidis, S. 645
- Duncan, D. I.—
See Story, J. G. 471
- Dyrting, S.—
See Chen, W. 777
- Dzuba, V. A., Flambaum, V. V., and King, W. A.—
Summation of the dominating diagrams in many-body perturbation theory 231
- Evans, D. J.—
See Searles, D. J. 39
- Fabrikant, I. I.—
See Burrow, P. D. 403
- Farrell, P. M.—
See Teubner, P. J. O. 481
- Feng, X.-P., Witte, N. S., Hollenberg, L. C. L., and Opat, G. I.—
Reflection and diffraction of atomic de Broglie waves by evanescent laser waves—Bare-state method 765
- Fissum, K.—
See Kuzin, A. 1075
- Flambaum, V. V.—
See Dzuba, V. A. 231
- Fusi, F.—
See Troup, G. J. 673
- Gallagher, T. F.—
See Story, J. G. 471
- Gallup, G. A.—
See Burrow, P. D. 403
- Granitza, B., Guo, X., Hurn, J. M., Lower, J., Mazevet, S., McCarthy, I. E., Shen, Y., and Weigold, E.—
Spin effects in the (e, 2e) cross section of xenon 383
- Gregel, J.—
See Kuzin, A. 1075
- Griga, V.—
See Agop, M. 1063
- Gross, E. K. U.—
See Ullrich, C. A. 103
- Guichon, P. A. M.—
See Liu, G. Q. 905
- Guo, X.—
See Granitza, B. 383
- Gupta, R.—
See McClelland, J. J. 555
- Hägg, L.—
See Bürgdorfer, J. 527
- Hale, B. N.—
Monte Carlo calculations of effective surface tension for small clusters 425
- Hannaford, P.—
See Rowlands, W. J. 577
- Hansen, K.—
See Kuzin, A. 1075
- Hassan, M. A., Awd-Allah, H. E. A., Hassan, S. S. A., and Tag El-Din, I. M. A.—
Phase variation effect on proton-nucleus elastic scattering 655
- Hassan, S. S. A.—
See Hassan, M. A. 655

- Hieu, N. V.—
 Topological quantum fluids 183
- Hin, T. T.—
 See Morgan, M. J. 607
- Hollenberg, L. C. L.—
 See Feng, X.-P. 765
- Hoogerland, M. D., Milic, D., Lu, W., Bachor, H.-A., Baldwin, K. G. H., and Buckman, S. J.—
 Production of ultrabright slow atomic beams using laser cooling 567
- Hou, M. D.—
 See Cai, X. 945
- Hurn, J. M.—
 See Granitz, B. 383
- Isaksson, L.—
 See Kuzin, A. 1075
- Jabbour, Z. J.—
 See McClelland, J. J. 555
- Jacka, M., Kelly, J., Lohmann, B., and Buckman, S. J.—
 Electron collisions with metastable helium 515
- Jayatilaka, D.—
 See Chandler, G. S. 261
- Jordan, K. D.—
 See Burrow, P. D. 403
- Karaganov, V.—
 See Teubner, P. J. O. 481
- Karataglidis, S., Dortmans, P. J., Amos, K., and de Swiniarski, R.—
 Inelastic proton scattering analyses and ambiguities in spin-parity assignments of states in ^{12}C 645
- Kelly, J.—
 See Jacka, M. 515
- Kheifets, A. S.—
 See Weigold, E. 543
- King, W. A.—
 See Dzuba, V. A. 231
- Kuzin, A., Rassoul, R., Thompson, M. N., Adler, J.-O., Fissum, K., Hansen, K., Isaksson, L., Nilsson, D., Ruitjer, H., Schroder, B., Annand, J. R. M., Crawford, G. I., McGeorge, J. C., and Gregel, J.—
 De-excitation gamma-ray technique for improved resolution in intermediate energy photonuclear reactions 1075
- Larkins, F. P.—
 Core-hole electronic structure studies on molecules using synchrotron radiation 457
- Lau, D. C.—
 See Rowlands, W. J. 577
- Law, M. R.—
 See Teubner, P. J. O. 481
- Lewandowski, J. L. V., and Persson, M.—
 Field line pitch and local magnetic shear in tokamaks 1121
- Liu, G. Q., Thomas, A. W., and Guichon, P. A. M.—
 Virtual Compton scattering from the proton and the properties of nucleon excited states 905
- Liu, H. P.—
 See Cai, X. 945
- Liu, J.-T.—
 See Wang, K. M. 705
- Liu, X.-D.—
 See Wang, K. M. 705
- Liu, X.-J.—
 See Wang, K. M. 705
- Liu, Z.-Y.—
 See Cai, X. 945
- Lohmann, B.—
 Electron-Auger electron coincidence experiments: Current status and future prospects 365
 See Jacka, M. 515
- Lower, J.—
 See Granitz, B. 383
- Lu, W.—
 See Hoogerland, M. D. 567
- Ma, S.-J.—
 See Wang, K. M. 705
- Ma, X. W.—
 See Cai, X. 945
- McCarthy, I. E.—
 The electron-atom ionisation problem 219
 See Granitz, B. 383
 Weigold, E. 543
- McClelland, J. J., Gupta, R., Jabbour, Z. J., and Celotta, R. J.—
 Laser focusing of atoms for nanostructure fabrication 555
- McCormack, E. F., Pratt, S. T., Dehmer, P. M., and Dehmer, J. L.—
 Excited-state structure and dynamics of nitric oxide probed by resonant four-wave mixing techniques 445
- MacDonald, R. J.—
 See Shen, Y. G. 689
- McGeorge, J. C.—
 See Kuzin, A. 1075
- MacGillivray, W. R.—
 See Masters, A. T. 499

- McLean, R. J.—
See Rowlands, W. J. 577
- Madison, D. H.—
See Bubelev, V. 291
 Coplan, M. A. 321
- Masters, A. T., Sang, M. T.,
 MacGillivray, W. R., and
 Standage, M. C.—
 New data from laser interrogation of
 electron–atom collision
 experiments 499
- Mazevet, S.—
See Granitz, B. 383
- Metzthen, W. E.—
 Introduction to the views of distant
 objects in Kerr–Newman spacetimes
 623
- Meyer, F.—
See Bürgdorfer, J. 527
- Mikosza, A. G., and Williams, J. F.—
 The triple coincidence detection of the
 helium ^3D state decay 375
- Milburn, G. J.—
See Chen, W. 777
- Milic, D.—
See Hoogerland, M. D. 567
- Mitroy, J.—
 Positron–hydrogen scattering at
 intermediate energies 919
- Moham, M.—
See Prasad, V. 1109
- Moore, J. H.—
See Coplan, M. A. 321
- Morgan, M. J., and Hin, T. T.—
 Topological effects of a circular cosmic
 string 607
- Morriss, G. P., and Rondoni, L.—
 Chaos and its impact on the foundations
 of statistical mechanics 51
- Munakata, T.—
 Time-dependent density functional
 theory and its application to liquid
 dynamics 25
- Neilson, D.—
 Landau Fermi liquid theory 79
See Das, M. P. 1
- Nejoh, Y. N.—
 Positron-acoustic waves in an
 electron–positron plasma with an
 electron beam 967
- Nilsson, D.—
See Kuzin, A. 1075
- O'Connor, D. J.—
See Shen, Y. G. 689
- Opat, G. I.—
See Feng, X.-P. 765
 Rowlands, W. J. 577
- Peel, J. B.—
 Methoxy and methoxide adducts of
 fullerene-60: Semiempirical theoretical
 studies 435
- Persson, M.—
See Lewandowski, J. L. V. 1121
- Pinkás, A. A.—
See Coplan, M. A. 321
- Prasad, V., Sharma, R., and Moham, M.—
 Laser assisted electron–alkali atom
 collisions 1109
- Pratesi, R.—
See Troup, G. J. 673
- Pratt, S. T.—
See McCormack, E. F. 445
- Rapisarda, F., and Senatore, G.—
 Diffusion Monte Carlo study of electrons
 in two-dimensional layers 161
- Rassoul, R.—
See Kuzin, A. 1075
- Reinhold, C.—
See Bürgdorfer, J. 527
- Rondoni, L.—
See Morriss, G. P. 51
- Rowlands, W. J., Lau, D. C., Opat, G. I.,
 Sidorov, A. I., McLean, R. J., and
 Hannaford, P.—
 Manipulating beams of ultra-cold atoms
 with a static magnetic field 577
- Roy, A. L.—
See Slee, O. B. 977
- Roy Chowdhury, A.—
See Roy Chowdhury, K. 1159
- Roy Chowdhury, K., and Roy
 Chowdhury, A.—
 Nonlinear equation in (2+1) dimensions
 for a plasma with negative ions 1159
- Ruitjer, H.—
See Kuzin, A. 1075
- Sang, M. T.—
See Masters, A. T. 499
- Savage, C.—
 Introduction to light forces, atom
 cooling, and atom trapping 745
- Schroder, B.—
See Kuzin, A. 1075
- Searles, D. J., and Evans, D. J.—
 On the lifetimes of antisteady states 39
- Senatore, G.—
See Rapisarda, F. 161

- Sharma, R.—
See Prasad, V. 1109
- Shen, Y.—
See Granitz, B. 383
- Shen, Y. G., O'Connor, D. J., and MacDonald, R. J.—
 Carbon monoxide adsorption on a Cu₃Pt(111) single crystal alloy 689
- Shen, Z. Y.—
See Cai, X. 945
- Shi, B.-R.—
See Wang, K. M. 705
- Sidorov, A. I.—
See Rowlands, W. J. 577
- Slee, O. B., Roy, A. L., and Andernach, H.—
 A VLA survey of rich clusters of galaxies. III. The weaker sources: maps and identifications 977
- Stan, C.—
See Agop, M. 1063
- Standage, M. C.—
See Masters, A. T. 499
- Stelbovics, A. T.—
See Bubelev, V. 291
- Stelbovics, A. T., and Berge, L.—
 Close-coupling formalism for electron/positron-atom systems and underlying scattering theory 273
- Stewart, A. M.—
 Gauge variance of diamagnetic and paramagnetic moments 683
- Storer, P.—
See Weigold, E. 543
- Story, J. G., Duncan, D. I., and Gallagher, T. F.—
 Spatially resolved inter-electron interaction of autoionising states 471
- Suchy, K.—
 Collision integrals for tensorial hermite polynomials in mixtures of rarefied gases and plasmas 1135
- Suvorov, V.—
See Teubner, P. J. O. 481
- Tag El-Din, I. M. A.—
See Hassan, M. A. 655
- Tang, C. Q., and Yu, L. H.—
 Positron annihilation study of deformation in two-phase ($\alpha+\beta$) Cu-Zn alloy 1181
- Teubner, P. J. O., Farrell, P. M., Karaganov, V., Law, M. R., and Suvorov, V.—
 Laser assisted collisions of electrons with metal vapours 481
- Thomas, A. W.—
See Liu, G. Q. 905
- Thompson, M. N.—
See Kuzin, A. 1075
- Troup, G. J., Agati, G., Fusi, F., and Pratesi, R.—
 Photophysics of the variable quantum yield of asymmetric bilirubin 673
- Twamley, J.—
See Walls, D. F. 713
- Ullrich, C. A., and Gross, E. K. U.—
 Density functional theory of normal and superconducting electron liquids: Explicit functionals via the gradient expansion 103
- Unnikrishnan, K.—
 Nonlinear effects in single-photon resonant excitation of atomic hydrogen 669
- Vos, M. —
See Weigold, E. 543
- Walls, D. F.—
 Quantum measurements in atom optics 715
- Walls, D. F., and Twamley, J.—
 Introduction to 'Atom Optics' issue 713
- Wang, J. B., and Williams, J. F.—
 Angular and polarisation correlations between cascade photons 335
- Wang, K. M., Shi, B.-R., Zhai, H.-Y., Ma, S.-J., Liu, X.-D., Liu, J. T., and Liu, X.-J.—
 Mobility of Hg⁺ and Br⁺ implanted in quartz 705
- Wang, Y. A.—
See Davidson, E. R. 247
- Weigold, E.—
See Buckman, S. J. 197
Granitz, B. 383
- Weigold, E., Cai, Y. Q., Canney, S. A., Kheifets, A. S., McCarthy, I. E., Storer, P., and Vos, M.—
 Direct observation of energy-momentum densities in solids 543
- Williams, J. F.—
See Mikosza, A. G. 375
- Witte, N. S.—
See Feng, X.-P. 765
Wang, J. B. 335
- Wolff, S. K.—
See Chandler, G. S. 261

Yu, L. H.—

See Tang, C. Q. 1181

Zhai, H.-Y.—

See Wang, K. M. 705

Zhang, W.—

Vector quantum field theory of atoms:

Nonlinear atom optics and

Bose-Einstein condensate 819