

Index to Volume 32

Numbers prefixed by S are Astrophysical Supplement numbers

- Allen, B. J.—
 See Musgrove, A. R. de L. 213
 Taylor, R. B. 551
 Allen, B. J., and Cohen, D. D.—
 keV neutron capture cross section of
 ^{170}Yb 447
 Amos, K.—
 See Smith, R. 155
 Anderson, Ronald, and Joshi, G. C.—
 Meson mass formulae in $SU(5)$ 533
 Argon: properties of states in ^{40}Ar 195
 Arora, C. L.—
 See Soni, K. R. 575
- Astronomy*
 Atmospheric gravity wave production for
 total solar eclipse of 23 October
 1976 287
 Balloon investigation of galactic γ -ray lines
 with high resolution Ge(Li)
 spectrometer 375
 Galactic γ -ray lines resulting from
 interactions between low energy cosmic
 rays and interstellar medium 383
 Observations of SNRs in Magellanic
 Clouds 123
 Optical positions for identifications
 from MC2 and MC3 catalogues 511
 See also Radio astronomy
- Astrophysics*
 Absorption of curvature radiation 49
 Cylindrical pulsar magnetosphere model
 with particle inertia 681
 Evolution of radio emission from young
 SNRs according to observational
 data 95
 Kinematic diffusion of scalar quantities in
 turbulent velocity fields 503
 Laboratory modelling of neutron star
 magnetospheres 71
 Model of solar X-ray bright points and
 ephemeral active regions 671
 Propagation effects on polarization of
 pulsar radio emission 61
 Theory of one-dimensional isothermal
 blast waves in magnetic field 491
- Atomic physics: helium 2^3S densities and
 excitation mechanisms in He-Cd^+
 laser 561
- Attard, A. C.—
 See Devins, D. W. 323
 Henderson, R. S. 411
- Ball, S. M.—
 Atmospheric gravity wave production for
 the Australian total solar eclipse of
 23 October 1976 287
- Barium: resonance neutron capture in
 ^{138}Ba 213
- Batty, M. J.—
 Models of radio recombination line
 sources 261
- Beale, D. J., Poletti, A. R., and
 Southon, J. R.—
 Gamma-ray studies using a solid argon
 target: properties of states in ^{40}K and
 ^{40}Ar 195
- Bhattacharyya, D. P., and Roychoudhury,
 R. K.—
 Sea level muon spectrum and muon charge
 ratio derived from CERN results for
 nucleon-nucleus inelastic interactions 369
- Birch, J. A., Collins, J. G., and
 White, G. K.—
 Heat capacities and Grüneisen parameters
 for NaF and NaBr below 25 K 463
- Bolton, J. G.—
 See Savage, Ann S46
- Bolton, J. G., Wright, Alan E., and
 Savage, Ann—
 The Parkes 2700 MHz survey (fourteenth
 part): Catalogue for declinations -4°
 to -15° , right ascensions 10^h to 15^h S46
 Abstract to S46 415
- Branford, D.—
 Comment on recent results for ^{40}Ca
 giant resonances obtained from the
 $^{40}\text{Ca}(^3\text{He}, ^3\text{He})^{40}\text{Ca}^* \rightarrow ^{36}\text{Ar} + \alpha$
 reaction 279
- Buchdahl, H. A.—
 Perturbed characteristic functions:
 application to the linearized gravitational
 field 405
- Burman, R. R., and Mestel, L.—
 A cylindrical pulsar magnetosphere model
 with particle inertia 681

- Butler, P. H., Haase, R. W., and Wybourne, B. G.—
Calculation of $3jm$ factors and the matrix elements of E_7 group generators 137
- Calcium: comment on recent results for ^{40}Ca giant resonances 279
- Calcium: γ -ray decay of weak s resonances in ^{40}Ca 439
- Caswell, J. L.—
See Haynes, R. F. S48
- Caswell, J. L., and Lerche, I.—
Galactic supernova remnants: radio evolution and population characteristics 79
- Cerium: resonance neutron capture in ^{140}Ce 213
- Chromium: cross section measurements in $^{54}\text{Cr}(p, \gamma)^{55}\text{Mn}$ 335
- Clark, G. J.—
See Switkowski, Z. E. 343
- Clark, P. D., Johnston, A., and Ophel, T. R.—
Widths of the 14.32 and 14.40 MeV levels in ^{16}O 283
- Clayton, E.—
See Rose, E. K. 525
- Cleary, M. N.—
See Heiles, C. S47
- Cohen, D. D.—
See Allen, B. J. 447
- Collins, J. G.—
See Birch, J. A. 463
- Cook, J. L.—
See Rose, E. K. 525
- Cordes, J. M.—
Pulsar microstructure: periodicities, polarization and probes of pulsar magnetospheres 9
See also Fowler, L. A. 35
- Cosmic rays: sea level muon spectrum and muon charge ratio 369
- Devins, D. W.—
See Henderson, R. S. 411
- Devins, D. W., Friesel, D. L., Jones, W. P., Attard, A. C., Svalbe, I. D., Officer, V. C., Henderson, R. S., Spicer, B. M., and Shute, G. G.—
The $^{12}\text{C}(p, 2p)^{11}\text{B}$ reaction at 100 MeV 323
- Dodd, L. R.—
Simplified DWBA for heavy ion induced transfer at high energies 173
- Dopita, M. A.—
Optical observations of SNRs in the Magellanic Clouds 123
- Electromagnetism: radiation properties of arc antennas in warm plasma 575
- Eremin, B. G., Zheleznyakov, V. V., Kostrov, A. V., Slutsker, Ya. Z., and Suvorov, E. V.—
Laboratory modelling of neutron star magnetospheres 71
- Fowler, L. A., Cordes, J. M., and Taylor, J. H.—
Progress report on the binary pulsar 1913+16 35
- Friesel, D. L.—
See Devins, D. W. 323
Henderson, R. S. 411
- Fukui, Y., and Morita, T.—
The equilibrium statistical mechanics of a one-dimensional self-gravitational system 289
- Gaseous electronics*
Accuracy of numerical solutions of Boltzmann's equation 231
Comparison between Boltzmann and Monte Carlo methods for determination of transport coefficients in molecular hydrogen 255
- General relativity*
Existence and stability of circular orbits in Schwarzschild field with nonvanishing cosmological constant 293
Perturbed characteristic functions 405
- George, E. P., Okamoto, K., Nakamura, Y., and Hamada, T.—
Quantum theory of energy loss by test ions to plasma electrons 223
- Grace, J. R.—
See McIntosh, A. I. 561
- Gravity: equilibrium statistical mechanics of one-dimensional self-gravitational system 289
- Gravity wave production, atmospheric, for total solar eclipse of 23 October 1976 287
- Gupta, J. B.—
See Kumar, K. 307

- Haase, R. W.—
See Butler, P. H. 137
- Hamada, T.—
See George, E. P. 223
- Hamilton, J. H.—
See Kumar, K. 307
- Haynes, R. F., Caswell, J. L., and
 Simons, L. W. J.—
 A catalogue of 5 GHz galactic plane
 sources S48
 Abstract to S48 415
- Haynes, R. F., Jauncey, David L., Lerche, I.,
 and Mordin, P. G.—
 Nature of Circinus X-1 43
- Heggie, J. C. P.—
See Switkowski, Z. E. 343
- Heiles, C., and Cleary, M. N.—
 The HI column density as a function of
 position in the southern sky S47
 Abstract to S47 415
- Henderson, R. S.—
See Devins, D. W. 323
- Henderson, R. S., Spicer, B. M., Svalbe, I. D.,
 Officer, V. C., Shute, G. G., Devins,
 D. W., Friesel, D. L., Jones, W. P.,
 and Attard, A. C.—
 4⁺ particle-hole states in ¹⁶O 411
- Hirasima, Y.—
See Yoshimori, M. 375
- Howes, R. J.—
 Existence and stability of circular orbits
 in a Schwarzschild field with non-
 vanishing cosmological constant 293
- Hunter, Scott R.—
See Reid, Ivan D. 255
- Issi, J-P.—
 Low temperature transport properties of
 the group V semimetals 585
- Izvekova, V. A., Kuzmin, A. D., Molofeev,
 V. M., and Shitov, Yu. P.—
 Energy spectra and pulse shapes of
 pulsars at metre wavelengths 25
- Jauncey, David L.—
See Haynes, R. F. 43
- Jewsbury, Peter—
 Theoretical analysis of plasmon dispersion
 in simple metals 361
- Johnson, C. H. J.—
 On the functional form of the transition
 probabilities in the Monte Carlo method
 as used in statistical mechanics 455
- Johnson, P. B., and Rayne, J. A.—
 Temperature dependence of carrier
 scattering rate in copper from
 magnetoacoustic experiments 641
- Johnston, A.—
See Clark, P. D. 283
- Jones, G. D.—
 Spectroscopy of ionic crystals: the
 hydrogenated calcium fluoride
 system 629
- Jones, W. P.—
See Devins, D. W. 323
 Henderson, R. S. 411
- Joshi, G. C.—
See Anderson, Ronald 533
- Kennett, S. R.—
See Wilkinson, R. J. 335
- Knat'ko, V. A., Martsynkevich, B. A., and
 Rudak, E. A.—
 An analysis of the γ -ray decay of weak
 s resonances in ⁴⁰Ca 439
- Koo, W. K., and Tassie, L. J.—
 Bounds for the centre-of-mass-corrected
 energy-weighted sum rules for nuclear
 form factors and multipole
 moments 427
- Kostenko, V. I.—
See Matveyenko, L. I. 105
- Kostrov, A. V.—
See Eremin, B. G. 71
- Kumar, K., Gupta, J. B., and Hamilton,
 J. H.—
 Dynamic deformation theory and
 multiphonon vibrational bands in
¹⁵⁴Gd 307
- Kuzmin, A. D.—
See Izvekova, V. A. 25
- Laser, hollow cathode He-Cd⁺, excitation
 mechanisms in 561
- Laser fields, intense, photon fission in 295
- LEED peak widths: Fabry-Perot etalon
 analogue 529
- Lerche, I.—
 Kinematic diffusion of scalar quantities in
 turbulent velocity fields 503
 Mathematical theory of one-dimensional
 isothermal blast waves in a magnetic
 field 491
See also Caswell, J. L. 79
 Haynes, R. F. 43
- Lindsey, J. F., Perlman, H. S., and Troup,
 G. J.—
 Photon fission in intense laser fields and in
 the Coulomb field of a nucleus 295
- Lozinskaya, T. A.—
 The supernova remnants IC443 and
 VRO42.05.01: fast filaments and
 high-velocity gas 113

- McIntosh, A. I., and Grace, J. R.—
Helium 2^3S densities and excitation
mechanisms in a hollow cathode He-Cd⁺
laser 561
- Macklin, R. L.—
See Musgrove, A. R. de L. 213
Taylor, R. B. 551
- Magellanic Clouds, optical observations
of SNRs in 123
- Manchester, R. N.—
The galactic distribution of pulsars 1
- Manganese: cross section measurements in
 $^{54}\text{Cr}(p, \gamma)^{55}\text{Mn}$ 335
- Mann, F. M.—
See Wilkinson, R. J. 335
- Martsynkevich, B. A.—
See Knat'ko, V. A. 439
- Matveyenko, L. I., and Kostenko, V. I.—
On the structure of the Crab Nebula 105
- Melrose, D. B.—
Propagation effects on the polarization
of pulsar radio emission 61
- Mestel, L.—
See Burman, R. R. 681
- Milne, D. K.—
A new catalogue of galactic SNRs
corrected for distance from the
galactic plane 83
- Mohr, C. B. O.—
Heavy-ion elastic collisions and the
nuclear surface diffuseness 541
- Molofeev, V. M.—
See Izvekova, V. A. 25
- Morita, T.—
See Fukui, Y. 289
- Murakami, H.—
See Yoshimori, M. 375
- Murdin, P. G.—
See Haynes, R. F. 43
- Murdoch, H. S., and Sanitt, N.—
Optical positions for identifications from
the MC2 and MC3 catalogues 511
- Musgrove, A. R. de L.—
See Taylor, R. B. 551
- Musgrove, A. R. de L., Allen, B. J., and
Macklin, R. L.—
Resonance neutron capture in ^{138}Ba
and ^{140}Ce and the prompt neutron
correction to γ -ray detectors 213
- Nakamura, Y.—
See George, E. P. 223
- Nuclear physics*
- Aspects of exceptional group E_8 417
- Bounds for centre-of-mass-corrected
energy-weighted sum rules for nuclear
form factors and multipole
moments 427
- Calculation of $3jm$ factors and matrix
elements for E_7 group generators 137
- $^{12}\text{C}(p, 2p)^{11}\text{B}$ at 100 MeV 323
- Comment on recent results for ^{40}Ca
giant resonances 279
- Comparison of effective two-nucleon
interactions 155
- Cross section measurements in
 $^{54}\text{Cr}(p, \gamma)^{55}\text{Mn}$ 335
- 4^- particle-hole states in ^{16}O 411
- γ -ray decay of weak s resonances in
 ^{40}Ca 439
- γ -ray studies using a solid argon
target 195
- Heavy-ion elastic collisions and nuclear
surface diffuseness 541
- keV neutron capture cross section of
 ^{170}Yb 447
- keV neutron capture in ^{141}Pr 551
- Meson mass formulae in $SU(5)$ 533
- Multiphonon vibrational bands in
 ^{154}Gd 307
- Partial wave analysis of $^{18}\text{O}(p, \alpha_0)^{15}\text{N}$ 187
- Photon fission cross section in Coulomb
field of nucleus 295
- Prompt neutron correction to γ -ray
detectors 213
- Properties of states in ^{40}K and ^{40}Ar 195
- Nucleon ground state 525
- Resonance neutron capture in ^{138}Ba and
 ^{140}Ce 213
- Simplified DWBA for heavy ion induced
transfer at high energies 173
- Techniques for characterization of chrome
black solar absorber surfaces 343
- Widths of 14.32 and 14.40 MeV levels in
 ^{16}O 283
- Oceanography: effects of wavenumber
spectrum of sea surface on laser beam
reflection 469
- Officer, V. C.—
See Devins, D. W. 323
Henderson, R. S. 411
- Okamoto, K.—
See George, E. P. 223
- Okudaira, K.—
See Yoshimori, M. 375
- Ophel, T. R.—
See Clark, P. D. 283

- Optics: Fabry-Perot analogue of LEED
peak widths 529
- Oxygen: widths of 14.32 and 14.40 MeV
levels in ^{16}O 283
- Payling, Richard, Ramsey, J. A., and
Turner, R. G.—
LEED peak widths: a Fabry-Perot etalon
analogue 529
- Perlman, H. S.—
See Lindsey, J. F. 295
- Petty, R. J.—
See Switkowski, Z. E. 343
- Phillips, D. M.—
Effects of the wavenumber spectrum of a
sea surface on laser beam reflection 469
- Piddington, J. H.—
A model of solar X-ray bright points and
ephemeral active regions 671
- Plasma physics*
Quantum theory of energy loss by test
ions 223
Radiation properties of arc antennas in
warm plasma 575
- Poletti, A. R.—
See Beale, D. J. 195
- Potassium: properties of states in ^{40}K 195
- Praseodymium: keV neutron capture in
 ^{141}Pr 551
- Radio astronomy*
Absorption of curvature radiation in
pulsar theory 49
Catalogue of 5 GHz galactic plane
sources S48
Abstract to S48 415
Catalogue of galactic SNRs corrected for
distance from the galactic plane 83
Energy spectra and pulse shapes of pulsars
at metre wavelengths 25
Evolution of radio emission from young
SNRs according to observational
data 95
Galactic distribution of pulsars 1
Galactic SNRs: radio evolution and
population characteristics 79
HI column density as function of position
in southern sky S47
Abstract to S47 415
Laboratory modelling of neutron star
magnetospheres 71
Models of radio recombination line
sources 261
Nature of Circinus X-1 43
- Optical positions for identifications from
MC2 and MC3 catalogues 511
Parkes 2700 MHz catalogue and new
optical identifications:
Fourteenth part S46
Abstract to S46 415
Periodicities and polarization of
microstructure in pulsars 9
Progress report on binary pulsar
1913+16 35
Propagation effects on polarization of
pulsar radio emission 61
Secular decreases in 927 MHz
emission from SNRs Cas A and
Tau A 93
SNRs IC443 and VRO42.05.01 113
Structure of Crab Nebula 105
Theory of one-dimensional isothermal
blast waves in magnetic field 491
- Ramsey, J. A.—
See Payling, Richard 529
- Rayne, J. A.—
See Johnson, P. B. 641
- Razin, V. A.—
See Vinyajkin, E. N. 93
- Reid, Ivan D.—
An investigation of the accuracy of
numerical solutions of Boltzmann's
equation for electron swarms in gases
with large inelastic cross sections 231
- Reid, Ivan D., and Hunter, Scott R.—
Comparison between the Boltzmann and
Monte Carlo simulation methods for the
determination of electron swarm
transport coefficients in molecular
hydrogen 255
- Rose, E. K., Cook, J. L., and Clayton, E.—
The nucleon ground state 525
- Roychoudhury, R. K.—
See Bhattacharyya, D. P. 369
- Rudak, E. A.—
See Knat'ko, V. A. 439
- Sanitt, N.—
See Murdoch, H. S. 511
- Sargood, D. G.—
See Wilkinson, R. J. 335
- Savage, Ann—
See Bolton, J. G. S46
- Savage, Ann, and Bolton, J. G.—
New optical identifications from the
fourteenth part of the Parkes 2700 MHz
survey: Declinations -4° to -15° ,
right ascensions 10^h to 15^h S46
Abstract to S46 415

- Shaposhnikov, V. E.—
 See Zheleznyakov, V. V. 49
- Shitov, Yu. P.—
 See Izvekova, V. A. 25
- Shute, G. G.—
 See Devins, D. W. 323
 Henderson, R. S. 411
- Simons, L. W. J.—
 See Haynes, R. F. S48
- Slutsker, Ya. Z.—
 See Eremin, B. G. 71
- Smith, R., and Amos, K.—
 A comparison of effective two-nucleon interactions appropriate for use in analyses of inelastic nucleon scattering 155
- Sodium bromide and sodium fluoride, heat capacities and Grüneisen parameters below 25 K of 463
- Solar energy: nuclear techniques for characterization of chrome black solar absorber surfaces 343
- Solar physics: model of X-ray bright points and ephemeral active regions 671
- Solid state physics*
- Far infrared absorption by amorphous semiconductors 663
- Heat capacities and Grüneisen parameters of NaF and NaBr below 25 K 463
- Low temperature transport properties of group V semimetals 585
- Nuclear orientation and its applications 647
- Nuclear techniques for characterization of chrome black solar absorber surfaces 343
- Plasmon dispersion in simple metals 361
- Spectroscopy of ionic crystals 629
- Temperature dependence of carrier scattering rate in copper 641
- Soni, K. R., and Arora, C. L.—
 Radiation properties of arc antennas in a warm plasma 575
- Southon, J. R.—
 See Beale, D. J. 195
- Spicer, B. M.—
 See Devins, D. W. 323
 Henderson, R. S. 411
 Wild, L. W. J. 187
- Stankevich, K. S.—
 Evolution of the radio emission from young SNRs according to observational data 95
- Statistical mechanics*
- Functional form of transition probabilities in Monte Carlo method 455
- Theory of one-dimensional self-gravitational system 289
- Suvorov, E. V.—
 See Eremin, B. G. 71
- Svalbe, I. D.—
 See Devins, D. W. 323
 Henderson, R. S. 411
- Switkowski, Z. E.—
 See Wilkinson, R. J. 335
- Switkowski, Z. E., Heggie, J. C. P., Clark, G. J., and Petty, R. J.—
 Use of nuclear techniques in the characterization of chrome black solar absorber surfaces 343
- Tassie, L. J.—
 See Koo, W. K. 427
- Taylor, J. H.—
 See Fowler, L. A. 35
- Taylor, R. B., Allen, B. J., Musgrove, A. R. de L., and Macklin, R. L.—
 keV neutron capture in ^{141}Pr 551
- Trodahl, H. J.—
 Far infrared absorption by tetrahedrally bonded amorphous semiconductors 663
- Troup, G. J.—
 See Lindsey, J. F. 295
- Turner, R. G.—
 See Payling, Richard 529
- Turrell, B. G.—
 Nuclear orientation and its application in solid state physics 647
- Vinyajkin, E. N., and Razin, V. A.—
 Secular decreases in the 927 MHz emission from the supernova remnants Cas A and Tau A 93
- Watanabe, H.—
 See Yoshimori, M. 375
- White, G. K.—
 See Birch, J. A. 463
- Wild, L. W. J., and Spicer, B. M.—
 Partial wave analysis of the $^{18}\text{O}(p, \alpha_0)^{15}\text{N}$ reaction 187
- Wilkinson, R. J., Kennett, S. R., Switkowski, Z. E., Sargood, D. G., and Mann, F. M.—
 Cross section measurements in the $^{54}\text{Cr}(p, \gamma)^{55}\text{Mn}$ reaction 335

- Wright, Alan E.—
 See Bolton, J. G. S46
- Wybourne, B. G.—
 Aspects of the exceptional group
 E_8 417
 See also Butler, P. H. 137
- Yoshimori, Masato—
 Galactic γ -ray lines resulting from
 interactions between low energy
 cosmic rays and the interstellar
 medium 383
- Yoshimori, M., Watanabe, H., Okudaira, K.,
 Hirasima, Y., and Murakami, H.—
 A balloon investigation of galactic γ -ray
 lines with a high resolution Ge(Li)
 spectrometer 375
- Ytterbium: keV neutron capture cross
 section of ^{170}Yb 447
- Zheleznyakov, V. V.—
 See Eremin, B. G. 71
- Zheleznyakov, V. V., and Shaposhnikov,
 V. E.—
 Absorption of curvature radiation 49

