

Indexes to Volume 58

SUBJECT INDEX

Rapid Communication

SNO results and neutrino magnetic moment solution to the solar neutrino problem *Debasish Majumdar* L135–L145

Atomic and Molecular Physics

X-ray fluorescence in some rare earth and high Z elements excited by 661.6 keV γ -rays *T Yashoda, S Krishnaveni, Shivalinge Gowda, T K Umesh and Ramakrishna Gowda* 31–38

($e, 3e$) Differential cross section of He (2^1S) and He (2^3S) *Kshamata Muktavat and M K Srivastava* 39–57

Development of a new experimental setup for studying collisions of keV-electrons with thick and thin targets *R K Singh, R K Mohanta, R Hippler and R Shanker* 499–520

Molar extinction coefficients of some carbohydrates in aqueous solutions *K Singh, G K Sandhu, B S Lark and S P Sud* 521–528

Schwinger variational calculation of ionization of hydrogen atoms for large momentum transfers *K Chakrabarti* 529–536

Photoionization of excited states of neon-like Mg III *Narendra Singh and Man Mohan* 639–646

Lasers and Optics

Operational characteristics of dual gain single cavity Nd:YVO₄ laser *Pranab K Mukhopadhyay, Jogy George, S K Sharma, P K Gupta and T P S Nathan* 59–66

Numerical investigation of space charge electric field for a sheet electron beam between two conducting planes *Arti Gokhale, Preeti Vyas, J Panikar, Y Choyal and K P Maheshwari* 67–77

($e, 3e$) Test on e – e correlations in helium *M K Srivastava and Kshamata Muktavat* 647–656

Effect of absorbed pump power on the quality of output beam from monolithic microchip lasers
Pranab K Mukhopadhyay, K Ranganathan, Jogy George, S K Sharma and T P S Nathan 657–668

Cross-phase modulational instability in an elliptical birefringent fiber with higher order nonlinearity and dispersion
R Ganapathy and V C Kuriakose 669–684

Quantum Mechanics

Korteweg–de Vries hierarchy using the method of base equations
Subhendu Chakrabarti, J Pal and B Talukdar 443–448

General Relativity and Gravitation

Quantum cosmology in Ashtekar variables with non-minimally coupled scalar–tensor theory
Subenoy Chakraborty 1–12

Quantum Einstein’s equations and constraints algebra
Fatimah Shojai and Ali Shojai 13–19

On the generation techniques of axially symmetric stationary metrics
S Chaudhuri 449–456

Tilted Bianchi type I dust fluid cosmological model in general relativity
Raj Bali and Keshav Sharma 457–464

One-soliton solutions from Laplace’s seed
S Chaudhuri and K C Das 465–476

Statistical Physics

Invariant metric for nonlinear symplectic maps
Govindan Rangarajan and Minita Sachidanand 477–488

Particle Physics

Star products from commutative string theory
Sunil Mukhi 21–26

QCD corrections to decay-lepton polar and azimuthal angular distributions in $e^+e^- \rightarrow t\bar{t}$ in the soft-gluon approximation
Saurabh D Rindani 575–590

Higher dimensional supersymmetric quantum mechanics and Dirac equation
L P Singh and B Ram 591–598

A solution of the DGLAP equation for gluon at low x
D K Choudhury and P K Sahariah 599–610

Nuclear Physics

Bridge between bound state and reaction effective nucleon–nucleon potentials
Y R Waghmare 27–30

| | | |
|---|---|---------|
| High spin properties of ^{124}Ba | <i>K Ilangovan and N Arunachalam</i> | 489–498 |
| Exotic decay in cerium isotopes | <i>K P Santhosh and Antony Joseph</i> | 611–622 |
| Design and fabrication of a time-of-flight spectrometer for studies of multiple ionization of gases by charged particle impact | <i>R K Singh, R K Mohanta, M J Singh, R Hippler, S K Goel and R Shanker</i> | 623–638 |
| Plasma Physics | | |
| Investigations of low q_a discharges in the SINP tokamak | <i>S Lahiri, A N S Iyengar, S Mukhopadhyay and R Pal</i> | 79–89 |
| Materials Science | | |
| Magnetic fluid based squeeze film between porous annular curved plates with the effect of rotational inertia | <i>Rajesh C Shah, S R Tripathi and M V Bhat</i> | 545–550 |
| Biological and Medical Physics | | |
| Mesosopic biology | <i>G V Shivashankar</i> | 439–442 |
| Rheology of semi-dilute solutions of calf-thymus DNA | <i>Ranjini Bandyopadhyay and A K Sood</i> | 685–694 |
| Applied and Interdisciplinary Physics | | |
| Scaling in the Bombay stock exchange index | <i>Ashok Razdan</i> | 537–544 |
| Condensed Matter Physics | | |
| Strong anisotropy in the low temperature Compton profiles of electron momentum distribution in α -Ga metal | <i>B P Panda and N C Mohapatra</i> | 91–100 |
| Non-equilibrium effects in copper vapor laser pumped Nd^{3+} doped PVA film: Photo-electron paramagnetic resonance and photoacoustic spectral investigations | <i>Mithlesh Kumar, Y Babu, A R Dhobale, R M Kadam and M D Sastry</i> | 101–111 |
| Some open problems in the physics of disordered systems | <i>T V Ramakrishnan</i> | 149–154 |
| Theory of non-hermitian localization in one dimension: Localization length and eigenenergies | <i>J Heinrichs</i> | 155–172 |
| Effect of quantum entanglement on Aharonov–Bohm oscillations, spin-polarized transport and current magnification effect | <i>A M Jayannavar</i> | 173–182 |
| Time-reversal symmetry breaking by ac field: Effect of commensurability in the frequency domain | <i>V E Kravtsov</i> | 183–194 |

- Electron correlation effects in the presence of non-symmetry dictated nodes
P Singha Deo 195–204
- Transport in quantum wires *Siddhartha Lal, Sumathi Rao and Diptiman Sen* 205–216
- Parity effects in eigenvalue correlators, parametric and crossover correlators in random matrix models: Application to mesoscopic systems *N Deo* 217–224
- Infinite range correlations of intensity in random media
A Retzker and B Shapiro 225–232
- Role of mesoscopic morphology in charge transport of doped polyaniline
A K Mukherjee and Reghu Menon 233–240
- Charge densities and charge noise in mesoscopic conductors *M Büttiker* 241–258
- Two-dimensional mesoscopic Wigner crystallization and related issues
Jean-Louis Pichard 259–270
- Mesoscopic effects in the quantum Hall regime *R N Bhatt and Xin Wan* 271–284
- Quantum spin-glass transition in the two-dimensional electron gas
Subir Sachdev 285–292
- Spin and charge transport in the presence of spin-orbit interaction
T P Pareek and P Bruno 293–312
- Mirrorless lasers *Hema Ramachandran* 313–324
- Wave scattering through classically chaotic cavities in the presence of absorption: A maximum-entropy model *Pier A Mello and Eugene Kogan* 325–332
- From chaos to disorder: Statistics of the eigenfunctions of microwave cavities
Prabhakar Pradhan and S Sridhar 333–342
- Flicker noise in degenerately doped Si single crystals near the metal–insulator transition
A K Raychaudhuri, Arindam Ghosh and Swastik Kar 343–360
- Non-resonant microwave absorption studies of superconducting MgB_2 and $\text{MgB}_2 + \text{MgO}$
Janhavi P Joshi, Subhasis Sarangi, A K Sood, Dilip Pal and S V Bhat 361–370
- Arrays of magnetic nanoparticles capped with alkylamines
P John Thomas, P Saravanan, G U Kulkarni and C N R Rao 371–384
- Tunneling of trapped-atom Bose condensates *Subodh R Shenoy* 385–398

- Growth of rough epitaxial surfaces *Abhijit Mookerjee* 399–408
- Locating the minimum: Approach to equilibrium in a disordered, symmetric zero range process *Mustansir Barma and Kavita Jain* 409–418
- Percolation systems away from the critical point *Deepak Dhar* 419–426
- All basic condensed matter physics phenomena and notions mirror in biology – A hypothesis, two examples and a novel prediction *G Baskaran* 427–438
- Magnetotransport of the low-carrier density one-dimensional $S = 1/2$ anti-ferromagnet Yb_4As_3 *P Gegenwart, H Aoki, T Cichorek, J Custers, M Jaime, A Ochiai and F Steglich* 715–723
- Stoner vs. spin-mixing behavior in the bulk magnetism of Gd: A spin-resolved photoemission study *K Maiti, M C Malagoli, A Dallmeyer and C Carbone* 725–730
- Field and pressure response of Yb compounds close to a quantum critical point *C Seuring, E W Scheidt and E Bauer* 731–736
- Local-moment formation and metal–nonmetal transition in $\text{Ca}_{1-x}\text{Y}_x\text{VO}_3$ and $\text{Ca}_{1-x}\text{Y}_x\text{TiO}_3$ *Y Nishihara, H Kawanaka and H Bando* 737–742
- Metals near a magnetic instability *H v Löhneysen, C Pfleiderer, A Schröder and O Stockert* 743–754
- New aspects on URu_2Si_2 and CeTIn_5 ($T = \text{Rh, Ir, Co}$) observed by high pressure NMR and NQR *T Kohara* 755–760
- X-ray magnetic circular dichroism at $\text{IrL}_{2,3}$ edges in $\text{Fe}_{100-x}\text{Ir}_x$ and $\text{Co}_{100-x}\text{Ir}_x$ alloys: Magnetism of 5d electronic states *V V Krishnamurthy, M Suzuki, N Kawamura and T Ishikawa* 761–767
- Metamagnetism in $\text{Ce}(\text{Ga, Al})_2$ *K G Suresh, S Radha and A K Nigam* 769–771
- Magnetic-field-induced valence transition in rare-earth systems *G Gangadhar Reddy, A Ramakanth and S K Ghatak* 773–776
- Spin-glass, antiferromagnetism and Kondo behavior in $\text{Ce}_2\text{Au}_{1-x}\text{Co}_x\text{Si}_3$ alloys *Subham Majumdar, E V Sampathkumaran, St Berger, M Della Mea, H Michor, E Bauer, M Brando, J Hemberger and A Loidl* 777–782
- Studies on the valence electronic structure of Fe and Ni in $\text{Fe}_x\text{Ni}_{1-x}$ alloys *D K Basa, S Raj, H C Padhi, M Polasik and F Pawlowski* 783–786
- ac Conductivity of mixed spinel $\text{NiAl}_{0.7}\text{Cr}_{0.7}\text{Fe}_{0.6}\text{O}_4$ *A K Rajarajan, S M Yusuf, P Balaya and R G Kulkarni* 787–789

- Influence of disorder on superconductivity in non-magnetic rare-earth nickel borocarbides
G Fuchs, K-H Müller, J Freudenberger, K Nenkov, S-L Dreschsler, S V Shulga, D Lipp, A Gladun, T Cichorek and P Gegenwart 791–797
- Microwave absorption studies of MgB₂ superconductor
M K Bhide, R M Kadam, M D Sastry, Ajay Singh, Shashwati Sen, Manmeet Kaur, D K Aswal, S K Gupta and V C Sahni 799–802
- Metal–insulator crossover in high T_c cuprates: A gauge field approach
P A Marchett, Z B Su and L Yu 803–808
- Comment on magnetism and superconductivity in rutheno cuprates: RuSr₂GdCu₂O₈ and RuSr₂Gd_{1.5}Ce_{0.5}Cu₂O₁₀
V S P Awana, M Karppinen and H Yamauchi 809–815
- Fluctuation conductivity in cuprate superconductors
S N Bhatia 817–825
- Novel charge density wave transition in crystals of R₅Ir₄Si₁₀
S Ramakrishnan 827–837
- Magnetization study of mercurocuprate (Hg, Re)Sr₂CuO_{4+δ}
S Balamurugan, I K Gopalakrishnan, J V Yakhmi and P Selvam 839–841
- EPR study of deoxygenated high-temperature superconductors
R J Singh, P K Sharma and Shakeel Khan 843–848
- Superconducting state parameters of indium-based binary alloys
A M Vora, Minal H Patel, P N Gajjar and A R Jani 849–853
- Spectral properties of doped bilayer cuprates at finite temperatures
Amit Pratap, Ratan Lal, Govind and S K Joshi 855–859
- Condensation energy of the superconducting bilayer cuprates
Govind, Ajay and S K Joshi 861–866
- Preparation and characterization of MgB₂ superconductor
Shashwati Sen, D K Aswal, Ajay Singh, T V Chandrasekhar Rao, K P Muthe, J C Vyas, L C Gupta, S K Gupta and V C Sahni 867–870
- Effect of substitution of Ce on superconducting properties of Bi_{1.7}Pb_{0.3}Sr₂Ca_{2-x}Ce_xCu₃O_{10+δ} system
R R Kothawale, B N Dole and S S Shah 871–875
- Structural studies and T_c dependence in La_{2-x}Dy_xCa_yBa₂Cu_{4+y}O_z type mixed oxide superconductors
S Rayaprol, Krushna Mavani, C M Thaker, D S Rana, Keka Chakravorty, S K Paranjape, M Ramanadham, Nilesh A Kulkarni and D G Kuberkar 877–880

- Electronic structure of MgB_2 *P Modak, R S Rao, B K Godwal and S K Sikka* 881–884
- Possible coexistence of superconductivity and magnetic order in $\text{NdPt}_2\text{B}_2\text{C}$
S K Dhar, A D Chinchure, E Alleno, C Godart, L C Gupta and R Nagarajan 885–888
- Ultrasonic attenuation in cuprate superconductors *T Gupta and D M Gaitonde* 889–891
- Investigating the vortex melting phenomenon in BSCCO crystals using magneto-optical imaging technique *A Soibel, S S Banerjee, Y Myasoedov, M L Rappaport, E Zeldov, S Ooi and T Tamegai* 893–898
- The microscopic investigation of structures of moving flux lines by neutron and muon techniques *E M Forgan, D Charalambous and P G Kealey* 899–901
- Flux line lattice symmetries in the borocarbide superconductor $\text{LuNi}_2\text{B}_2\text{C}$
M R Eskildsen, A B Abrahamsen, P L Gammel, D J Bishop, N H Andersen, K Mortensen and P C Canfield 903–905
- Magnetism and superconductivity in $\text{ErNi}_2\text{B}_2\text{C}$ *N J Bancroft, D M^cK Paul, G McIntyre, C D Dewhurst and R Cubitt* 907–911
- Vortex lattice transitions in $\text{YNi}_2\text{B}_2\text{C}$ *S J Levett, C D Dewhurst and D M^cK Paul* 913–917
- Commensurability oscillations in $\text{NdBa}_2\text{Cu}_3\text{O}_y$ single crystals *H Küpfer, G Ravikumar, Th Wolf, A A Zhukov and H Wühl* 919–924
- Study of the peak effect phenomenon in single crystals of 2H-NbSe_2
C V Tomy, D Pal, S S Banerjee, S Ramakrishnan, A K Grover, S Bhattacharya, M J Higgins, G Balakrishnan and D M^cK Paul 925–935
- A study of the plasticity in the vortex matter across the second magnetization peak in a YBCO crystal via measurements of minor hysteresis loops
D Pal, S Ramakrishnan, A K Grover, D Dasgupta and Bimal K Sarma 937–947
- Peak effect at microwave frequencies in swift heavy ion irradiated $\text{Yba}_2\text{Cu}_3\text{O}_{7-\delta}$ thin films
Tamalika Banerjee, Avinash Bhangale, D Kanjilal, S P Pai and R Pinto 949–954
- Peak effect in surface resistance at microwave frequencies in Dy-123 thin films
A R Bhangale, T Banerjee, P Raychaudhuri, S S Bhagwat, S P Pai, J John, V C Bagwe, V S Shirodkar and R Pinto 955–958

- Effect of swift heavy ion irradiation on surface resistance of $\text{DyBa}_2\text{Cu}_3\text{O}_{7-\delta}$ thin films at microwave frequencies
Ujwala Ail, Tamalika Banerjee, A R Bhangale, D Kanjilal and R Pinto 959–963
- The non-linear dynamics of vortices subjected to correlated and random pinning disorders in a quasi-2D superconductor
Leena K Sahoo, R C Budhani, D Kanjilal and G K Mehta 965–969
- Dynamics of the superconducting mixed state in $\text{Yba}_2\text{Cu}_3\text{O}_{7-\delta}/\text{PrBa}_2\text{Cu}_3\text{O}_{7-\delta}$ superlattices in radio frequency regime
K Senapati and R C Budhani 971–974
- Peak effect studies in single crystals CeRu_2 and 2H-NbS_2
A A Tulapurkar, A K Grover, S Ramakrishnan, A Niazi and A K Rastogi 975–978
- Comparison of thermomagnetic history effects in weakly pinned single crystals of $\text{R}_3\text{Rh}_4\text{Sn}_{13}$ ($\text{R} = \text{Yb, Ca}$)
S Sarkar, S Ramakrishnan, A K Grover, C V Tomy, G Balakrishnan and D M^cK Paul 979–983
- Low-field vortex dynamics in various high- T_c thin films
Johan J Åkerman and K V Rao 985–993
- Ferrites – what is new?
R Ranganathan and Anindita Ray 995–1002
- BiFeO_3 thin films: Novel effects
V R Palkar and R Pinto 1003–1008
- Metal–insulator transition in electron doped $\text{Ba}_{1-x}\text{La}_x\text{MnO}_3$ compounds
Manoranjan Kar and S Ravi 1009–1012
- Polarized Raman scattering in single crystals of $\text{Nd}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$
M Pattabiraman, G Rangarajan, Kwang-Yong Choi, P Lemmens, G Guentherodt, G Balakrishnan, D M^cK Paul and M R Lees 1013–1017
- Mn site substitution of $\text{La}_{0.67}\text{Ca}_{0.33}\text{MnO}_3$ with closed shell ions: Effect on magnetic transition temperature
L Seetha Lakshmi, V Sridharan, D V Natarajan, V Sankara Sastry and T S Radhakrishnan 1019–1026
- Size effect study in magnetoelectric BiFeO_3 system
Shwetha Shetty, V R Palkar and R Pinto 1027–1030
- Magnetic behavior of the oxide spinels: $\text{Li}_{0.5}\text{Fe}_{2.5-2x}\text{Al}_x\text{Cr}_x\text{O}_4$
U N Trivedi, K B Modi and H H Joshi 1031–1034
- Effect of Pr-Ca substitution on the transport and magnetic behavior of LaMnO_3 perovskite
C M Thaker, S Rayaprol, Krushna Mavani, D S Rana, M S Sahasrabudhe, S I Patil and D G Kuberkar 1035–1039

- Temperature hysteretic effect and its influence on colossal magnetoresistance of $\text{La}_{0.33}\text{Nd}_{0.33}\text{Ca}_{0.33}\text{MnO}_3$ *Darshan C Kundaliya, Reeta Vij, A A Tulapurkar, U Vaidya, R Pinto and R G Kulkarni* 1041–1044
- Study of structural and electronic transport properties of Ce-doped LaMnO_3 *Shahid Husain, R J Choudhary, Ravi Kumar, S I Patil and J P Srivastava* 1045–1049
- Synthetic magnetic opals *Amita Gupta, Alexei Yu Ganin, Parmanand Sharma, Vikrant Agnihotri, L M Belova, K V Rao, Mikhail E Kozlov, A A Zakhidov and R H Baughman* 1051–1059
- Effect of doping Ca on polaron hopping in $\text{LaSr}_2\text{Mn}_2\text{O}_7$ *S N Bhatia and Osama A Yassin* 1061–1063
- Effect of substrate temperature on electrical and magnetic properties of epitaxial $\text{La}_{1-x}\text{Pb}_x\text{MnO}_3$ films *Ajay Singh, D K Aswal, Shashwati Sen, K Shah, L C Gupta, S K Gupta and V C Sahni* 1065–1067
- The growth of a single crystal of $\text{Sr}_3\text{CuIrO}_6$ and its magnetic behavior compared to polycrystals *Asad Niazi, P L Paulose, E V Sampathkumaran, Ute Ch Rodewald and W Jeitschko* 1069–1073
- Percolative transport in the vicinity of charge-order ferromagnetic transition in a hole doped manganite *Navneet K Pandey, Prahallad Padhan and R C Budhani* 1075–1078
- Electrical transport in $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$ thin films at low temperatures *S Angappane, K Sethupathi and G Rangarajan* 1079–1083
- Colossal magnetoresistance in layered manganite $\text{Nd}_{2-2x}\text{Sr}_{1+2x}\text{Mn}_2\text{O}_7$ ($0 \leq x \leq 0.5$) *K Shah, D K Aswal, Ajay Singh, L C Gupta, S K Gupta and V C Sahni* 1085–1088
- Enhanced temperature-independent magnetoresistance below the metal–insulator transition temperature of epitaxial $\text{La}_{0.2}\text{Nd}_{0.4}\text{Ca}_{0.4}\text{MnO}_3$ thin films *Darshan C Kundaliya, A A Tulapurkar, J John, R Pinto and R G Kulkarni* 1089–1092
- Modification of magnetic anisotropy in metallic glasses using high-energy ion beam irradiation *K V Amrute, U R Mhatre, S K Sinha, D C Kothari, R Nagarajan and D Kanjilal* 1093–1100
- Electrical transport and magnetic ordering in $\text{R}_2\text{Ti}_3\text{Ge}_4$ ($\text{R} = \text{Dy, Ho and Er}$) compounds *R Nirmala, V Sankaranarayanan, K Sethupathi, A V Morozkin, T Geethakumary and Y Hariharan* 1101–1104

- Preparation, structural analysis and dielectric properties of $\text{Bi}_x\text{La}_{1-x}\text{FeO}_3$ perovskite
V L Mathe, K K Patankar, M B Kothale, S B Kulkarni, P B Joshi and S A Patil 1105–1113
- Magnetoelectric effect in cobalt ferrite-barium titanate composites and their electrical properties
R P Mahajan, K K Patankar, M B Kothale, S C Chaudhari, V L Mathe and S A Patil 1115–1124
- The development of information storage materials – how microscopy can help?
A K Petford-Long, X Portier, P Shang, A Cerezo and D J Larson 1125–1129
- Shape memory alloys – characterization techniques
Jayagopal Uchil 1131–1139
- Insulator–metal transition in a conservative system: An evidence for mobility coalescence in island silver films
Majunatha Pattabi 1141–1145
- Self-injection length in $\text{La}_{0.7}\text{Ca}_{0.3}\text{MnO}_3$ – $\text{Yba}_2\text{Cu}_3\text{O}_{7-\delta}$ ferromagnet superconductor multilayer thin films
S P Pai, S Wanchoo, S C Purandare, T Banerjee, P R Apte, A M Narsale and R Pinto 1147–1151
- Optical magnetic flux generation in superconductor
Masayoshi Tonouchi 1153–1157
- SQUID-based measuring systems
M P Janawadkar, R Baskaran, R Nagendran, K Gireesan, N Harishkumar, Rita Saha, L S Vaidhyanathan, J Jayapandian, Y Hariharan and T S Radhakrishnan 1159–1164
- Study of magnetoresistance and conductance of bicrystal grain boundary in $\text{La}_{0.67}\text{Ba}_{0.33}\text{MnO}_3$ thin film
Neeraj Khare, A K Gupta, U P Moharil, A K Raychaudhuri, S P Pai and R Pinto 1165–1170
- Sensitivity of surface resistance measurement of HTS thin films by cavity resonator, dielectric resonator and microstrip line resonator
N D Kataria, Mukul Misra and R Pinto 1171–1177
- Magneto-transport properties of $\text{La}_{0.7}\text{Ca}_{0.3}\text{MnO}_3/\text{SrTiO}_3/\text{La}_{0.7}\text{Ce}_{0.3}\text{MnO}_3$ tunnel junction
P Raychaudhuri, C Mitra, K Dorr, K H Muller, G Kobernik and R Pinto 1179–1182
- Studies on photoinduced effects in pulse-electrodeposited Ag/Hg-1212/CdSe hetero-nanostructures
D D Shivagan, P M Shirage and S H Pawar 1183–1190
- Effect of laser irradiation on C – V characteristics of electrodeposited Ag/Tl-2223/CdSe hetero-nanostructures
P M Shirage, D D Shivagan and S H Pawar 1191–1198

- Direct injection of spin-polarized carriers across $\text{Yb}_{1-x}\text{Cu}_x\text{O}_{7-\delta}$ - $\text{La}_{0.3}\text{Ca}_{0.7}\text{MnO}_3$ interface at 77 K
K V Upadhye, K Ganesh Kumara, S C Purandare, S P Pai and R Pinto 1199–1201
- Analysis of a shielded TE_{011} mode composite dielectric resonator for stable frequency reference
N D Kataria, K S Daya and V G Das 1203–1206
- Brief Reports**
- Test particle trajectories near cosmic strings
Farook Rahaman, Subenoy Chakraborty and K Maity 113–119
- Higher dimensional global monopole in Brans–Dicke theory
Farook Rahaman, Subenoy Chakraborty and Mehedi Kalam 121–126
- Gravitational field of spherical domain wall in higher dimension
Farook Rahaman and Mehedi Kalam 127–134
- Semileptonic ($\Lambda_b \rightarrow \Lambda_c e\nu$) decay in a field theoretic quark model
R K Das, A R Panda, R K Sahoo and M R Swain 551–562
- Theoretical study of relative width of photonic band gap for the 3-D dielectric structure
G K Johri, Akhilesh Tiwari, Saumya Saxena, Rajesh Sharma, Kuldeep Srivastava and Manoj Johri 563–568
- Photodissociation of NaH using time-dependent Fourier grid method
Anindita Bhattacharjee and Krishna Rai Dastidar 569–574
- Ultrasonic study of molecular interaction in binary liquid mixtures at 30 °C
A Ali and A K Nain 695–702
- Current correlation functions of ideal Fermi gas at finite temperature
R P Kaur, K Tankeshwar and K N Pathak 703–711