

# Journal of Physics

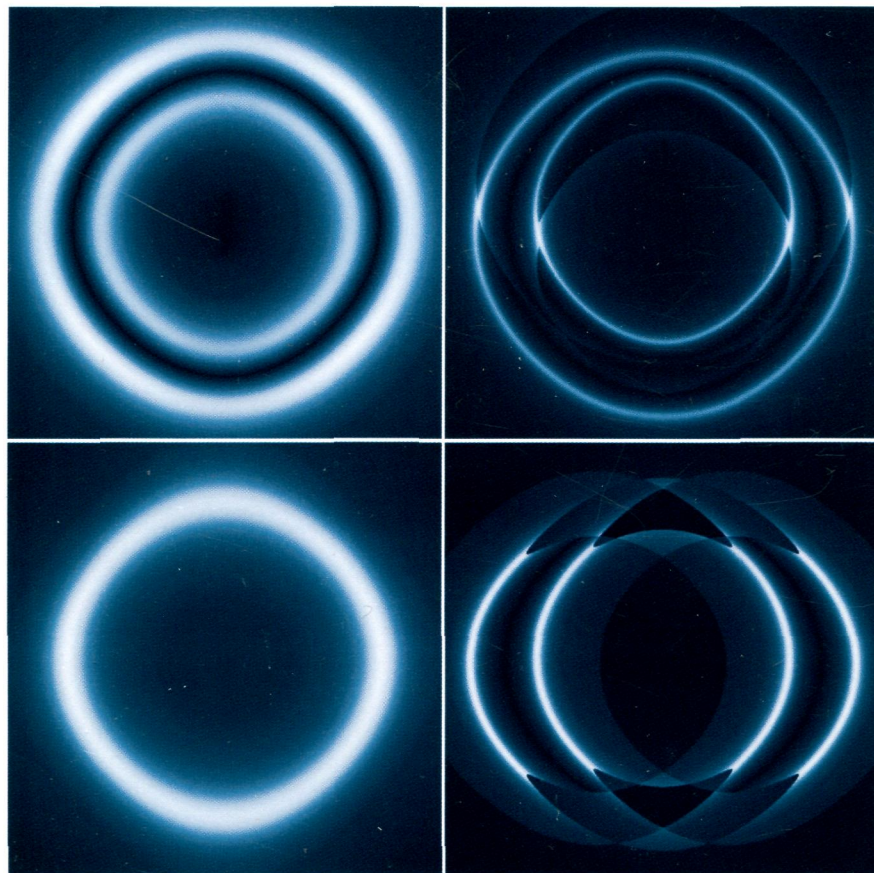
## Condensed Matter

Volume 25 Number 36 11 September 2013

### Topical review

**Artificial ferroic systems: novel functionality from structure, interactions and dynamics**

*L J Heyderman and R L Stamps*



[iopscience.org/jpcm](http://iopscience.org/jpcm)

**IOP** Publishing

### FAST TRACK COMMUNICATIONS

- 362201 Superconductivity with Rashba spin-orbit coupling and magnetic field**  
Florian Loder, Arno P Kampf and Thilo Kopp
- 362202 Melting of chiral order in terbium manganate (TbMnO<sub>3</sub>) observed with resonant x-ray Bragg diffraction**  
S W Lovesey, V Scagnoli, M Garganourakis, S M Koochpayeh, C Detlefs and U Staub
- 362203 Anomalous piezoelectric response due to stabilization of two ferroelectric phases in Zr-modified BaTiO<sub>3</sub>**  
Ajay Kumar Kalyani and Rajeev Ranjan
- 362204 Superconductivity of the topological insulator Bi<sub>2</sub>Se<sub>3</sub> at high pressure**  
P P Kong, J L Zhang, S J Zhang, J Zhu, Q Q Liu, R C Yu, Z Fang, C Q Jin, W G Yang, X H Yu, J L Zhu and Y S Zhao

### TOPICAL REVIEW

- 363201 Artificial ferroic systems: novel functionality from structure, interactions and dynamics**  
L J Heyderman and R L Stamps

### PAPERS

#### NANOSTRUCTURES AND NANOELECTRONICS

- 365301 Designer thermal switches: the effect of the contact material on instantaneous thermoelectric transport through a strongly interacting quantum dot**  
A Goker and E Gedik

#### SOLID STRUCTURE AND LATTICE DYNAMICS

- 365401 Pressure effect on structural and vibrational properties of Y-substituted BiFeO<sub>3</sub>**  
Yu-Jie Wu, Zhen-Xing Qin, Xiao-Kun Chen, Jing Zhang, Jing Liu, Zhigang Wu and Xiao-Jia Chen
- 365402 Sound velocities of PbTe to 14 GPa: evidence for coupling between acoustic and optic phonons**  
Matthew K Jacobsen, Wei Liu and Baosheng Li
- 365403 Modelling the lattice dynamics in Si<sub>x</sub>Ge<sub>1-x</sub> alloys**  
Ankita Katre, Ralf Drautz and Georg K H Madsen

#### ELECTRONIC STRUCTURE

- 365501 Layered pnictide-oxide Na<sub>2</sub>Ti<sub>2</sub>Pn<sub>2</sub>O (Pn=As, Sb): a candidate for spin density waves**  
Xun-Wang Yan and Zhong-Yi Lu
- 365502 Electronic and optical properties of Cr and Cr-N doped anatase TiO<sub>2</sub> from screened Coulomb hybrid calculations**  
Veysel Çelik and Ersen Mete
- 365503 Interlayer magnetoresistance in multilayer Dirac electron systems: motion and merging of Dirac cones**  
M Assili and S Haddad

#### CORRELATED ELECTRONS

- 365601 Low temperature ballistic spin transport in the S = 1/2 antiferromagnetic Heisenberg chain compound SrCuO<sub>2</sub>**  
H Maeter, A A Zvyagin, H Luetkens, G Pascua, Z Shermadini, R Saint-Martin, A Revcolevschi, C Hess, B Büchner and H-H Klauss
- 365602 Magnetoplasmon excitations from integer-filled Landau levels in narrow-gap quantum wells**  
S S Krishtopenko

*(Continued on inside back cover)*

**SUPERCONDUCTORS AND METALS**

- 365701 Possible  $s^{\pm}$ -wave pairing evidenced by midgap surface bound states in Fe-pnictide superconductors**  
C S Liu, J Y Chang, W C Wu and Chung-Yu Mou
- 365702 Angle and frequency dependence of self-energy from spin fluctuation mediated d-wave pairing for high temperature superconductors**  
Seung Hwan Hong and Han-Yong Choi

**MAGNETISM AND MAGNETIC MATERIALS**

- 366001 Antiferromagnetic resonance in the Mott insulator fcc- $\text{Cs}_3\text{C}_{60}$**   
Yuta Suzuki, Seiji Shibusaki, Yoshihiro Kubozono and Takashi Kambe
- 366002 Thermal or nonthermal? That is the question for ultrafast spin switching in GdFeCo**  
G P Zhang and Thomas F George
- 366003 Transport equations of energy for ferromagnetic insulators in contact with electrodes**  
J-E Wegrowe