

LETTERS

Electronic structure and strongly correlated systems

- Quantum oscillations in the activated conductivity in excitonic insulators: Possible application to monolayer WTe_2 (4 pages) L041101
Patrick A. Lee
- Zero-energy corner states in a non-Hermitian quadrupole insulator (5 pages) L041102
Yang Yu, Minwoo Jung, and Gennady Shvets
- Spin-fluctuation-induced pairing in twisted bilayer graphene (6 pages) L041103
Ammon Fischer, Lennart Klebl, Carsten Honerkamp, and Dante M. Kennes
- Quasiparticle dynamics of symmetry-resolved entanglement after a quench: Examples of conformal field theories and free fermions (7 pages) L041104
Gilles Perez, Riccarda Bonsignori, and Pasquale Calabrese
- Valence bond order in a honeycomb antiferromagnet coupled to quantum phonons (7 pages) L041105
Manuel Weber
- Kinetic pathway facilitated by a phase competition to achieve a metastable electronic phase (5 pages) L041106
Keisuke Matsuura, Hiroshi Oike, Vilmos Kocsis, Takuro Sato, Yasuhide Tomioka, Yoshio Kaneko, Masao Nakamura, Yasujiro Taguchi, Masashi Kawasaki, Yoshinori Tokura, and Fumitaka Kagawa
- Quantum many-body simulations of the two-dimensional Fermi-Hubbard model in ultracold optical lattices (7 pages) L041107
Bin-Bin Chen, Chuang Chen, Ziyu Chen, Jian Cui, Yueyang Zhai, Andreas Weichselbaum, Jan von Delft, Zi Yang Meng, and Wei Li
- Quantum phase diagram and chiral spin liquid in the extended spin- $\frac{1}{2}$ honeycomb XY model (5 pages) L041108
Yixuan Huang, Xiao-Yu Dong, D. N. Sheng, and C. S. Ting
- Dirac polaron dynamics in the correlated semimetal of perovskite CaIrO_3 (5 pages) L041109
J. Fujioka, R. Yamada, T. Okawa, and Y. Tokura
- Ultrafast Mott transition driven by nonlinear electron-phonon interaction (6 pages) L041110
Francesco Grandi, Jiajun Li, and Martin Eckstein
- Geometrical Hall effect and momentum-space Berry curvature from spin-reversed band pairs (6 pages) L041111
Max Hirschberger, Yusuke Nomura, Hiroyuki Mitamura, Atsushi Miyake, Takashi Koretsune, Yoshio Kaneko, Leonie Spitz, Yasujiro Taguchi, Akira Matsuo, Koichi Kindo, Ryotaro Arita, Masashi Tokunaga, and Yoshinori Tokura



Renormalized quasiparticles, topological monopoles, and superconducting line nodes in heavy-fermion CeTX_3 compounds (6 pages)	L041112
Vsevolod Ivanov, Xiangang Wan, and Sergey Y. Savrasov	
Evolution of lattice coherence in the intermediate-valence heavy-fermion compound EuNi_2P_2 studied by point contact spectroscopy (6 pages)	L041113
Masanobu Shiga, Isao Maruyama, Kengo Okimura, Takuro Harada, Takuya Takahashi, Akihiro Mitsuda, Hirofumi Wada, Yuji Inagaki, and Tatsuya Kawae	
Giant spin Hall angle in the Heusler alloy Weyl ferromagnet Co_2MnGa (7 pages)	L041114
L. Leiva, S. Granville, Y. Zhang, S. Dushenko, E. Shigematsu, T. Shinjo, R. Ohshima, Y. Ando, and M. Shiraishi	
Floquet second-order topological insulators in non-Hermitian systems (6 pages)	L041115
Hong Wu, Bao-Qin Wang, and Jun-Hong An	
Semiconductors I: bulk	
Impact of spin-orbit splitting on two-photon absorption spectra in a halide perovskite single crystal (6 pages) . . .	L041201
Keiichi Ohara, Takumi Yamada, Tomoko Aharen, Hirokazu Tahara, Hideki Hirori, Hidekatsu Suzuura, and Yoshihiko Kanemitsu	
Origin of anomalous temperature dependence of the Nernst effect in narrow-gap semiconductors (5 pages)	L041202
Ryota Masuki, Takuya Nomoto, and Ryotaro Arita	
<i>Ab initio</i> determination of ultrahigh thermal conductivity in ternary compounds (5 pages)	L041203
Huan Wu, Hang Fan, and Yongjie Hu	
Semiconductors II: surfaces, interfaces, microstructures, and related topics	
Current-induced second harmonic generation of Dirac or Weyl semimetals in a strong magnetic field (5 pages) . .	L041301
Yang Gao and Furu Zhang	
Geometry of random potentials: Induction of two-dimensional gravity in quantum Hall plateau transitions (5 pages)	L041302
Riccardo Conti, Hrant Topchyan, Roberto Tateo, and Ara Sedrakyan	
Theory of anisotropic plasmons (5 pages)	L041303
Seongjin Ahn and S. Das Sarma	
Microscopic bath effects on noise spectra in semiconductor quantum dot qubits (5 pages)	L041304
Seongjin Ahn, S. Das Sarma, and J. P. Kestner	
Surface physics, nanoscale physics, low-dimensional systems	
Quadrupole spin polarization as signature of second-order topological superconductors (6 pages)	L041401
Kirill Plekhanov, Niclas Müller, Yanick Volpez, Dante M. Kennes, Herbert Schoeller, Daniel Loss, and Jelena Klinovaja	
Floquet higher-order topological insulator in a periodically driven bipartite lattice (6 pages)	L041402
Weiwei Zhu, Y. D. Chong, and Jiangbin Gong	
Electric double layer effect in an extreme near-field heat transfer between metal surfaces (5 pages)	L041403
A. I. Volokitin	

(Continued)

Dual topological characterization of non-Hermitian Floquet phases (<i>6 pages</i>)	L041404
Longwen Zhou, Yongjian Gu, and Jiangbin Gong	
Nonequilibrium phase transition in transport through a driven quantum point contact (<i>6 pages</i>)	L041405
Oleksandr Gamayun, Artur Slobodeniuk, Jean-Sébastien Caux, and Oleg Lychkovskiy	
Key role of the moiré potential for the quasicondensation of interlayer excitons in van der Waals heterostructures (<i>6 pages</i>)	L041406
Camille Lagoin and François Dubin	
Electrical control of anisotropic and tightly bound excitons in bilayer phosphorene (<i>7 pages</i>)	L041407
Sangho Yoon, Taeho Kim, Seung-Young Seo, Seung-Hyun Shin, Su-Beom Song, B. J. Kim, Kenji Watanabe, Takashi Taniguchi, Gil-Ho Lee, Moon-Ho Jo, Diana Y. Qiu, and Jonghwan Kim	
High-order harmonic generation in graphene: Nonlinear coupling of intraband and interband transitions (<i>6 pages</i>)	L041408
Shunsuke A. Sato, Hideki Hirori, Yasuyuki Sanari, Yoshihiko Kanemitsu, and Angel Rubio	

ARTICLES

Electronic structure and strongly correlated systems

Temperature-dependent electronic structure and topological property of the Kondo semimetal $\text{CeFe}_2\text{Al}_{10}$ (<i>6 pages</i>)	045101
T.-S. Nam, Junwon Kim, Chang-Jong Kang, Kyoo Kim, and B. I. Min	
Thermoelectric properties of the stripe-charge ordering phases in IrTe_2 (<i>8 pages</i>)	045102
Jung Sang You, Man Jin Eom, Minhyea Lee, Y. J. Jo, C. J. Won, S.-W. Cheong, Kyoo Kim, and Jun Sung Kim	
Doping dependence of electronic structure of infinite-layer NdNiO_2 (<i>10 pages</i>)	045103
Zhao Liu, Chenchao Xu, Chao Cao, W. Zhu, Z. F. Wang, and Jinlong Yang	
Crystalline symmetry-dependent magnon formation in the itinerant ferromagnet SrRuO_3 (<i>6 pages</i>)	045104
Hyun Il Seo, Sungmin Woo, Ji Hyun Kim, Seung Gyo Jeong, Tuson Park, and Woo Seok Choi	
Nonlinear Hall effect in Weyl semimetals induced by chiral anomaly (<i>11 pages</i>)	045105
Rui-Hao Li, Olle G. Heinonen, Anton A. Burkov, and Steven S.-L. Zhang	
Anomalous Hall effect in the weak-itinerant ferrimagnet FeCr_2Te_4 (<i>5 pages</i>)	045106
Yu Liu (刘育), Hengxin Tan (谭恒心), Zhixiang Hu (胡之翔), Binghai Yan (颜丙海), and C. Petrovic	
Teleportation of Berry curvature on the surface of a Hopf insulator (<i>6 pages</i>)	045107
A. Alexandradinata, Aleksandra Nelson, and Alexey A. Soluyanov	
Electronic structure and two-band superconductivity in unconventional high- T_c cuprates $\text{Ba}_2\text{CuO}_{3+\delta}$ (<i>11 pages</i>)	045108
Kun Jiang, Congcong Le, Yinxian Li, Shengshan Qin, Ziqiang Wang, Fuchun Zhang, and Jiangping Hu	
Enhancement of spin-orbit coupling in Dirac semimetal Cd_3As_2 films by Sb doping (<i>7 pages</i>)	045109
Yusuke Nakazawa, Masaki Uchida, Shinichi Nishihaya, Mizuki Ohno, Shin Sato, and Masashi Kawasaki	
Specific heat of CeRhIn_5 in high magnetic fields: Magnetic phase diagram revisited (<i>5 pages</i>)	045110
S. Mishra, A. Demuer, D. Aoki, and I. Sheikin	

(Continued)

Order parameter for the multichannel Kondo model at quantum criticality (7 pages)	045111
Ru Zheng, Rong-Qiang He, and Zhong-Yi Lu	
Enhancement of electron correlations and spin density wave fluctuations of the organic superconductor λ -(BETS) ₂ GaCl ₄ under pressure proved by ¹³ C NMR (6 pages)	045112
M. Sawada, A. Kawamoto, and T. Kobayashi	
First-principles calculation of the Coulomb interaction parameters U and J for actinide dioxides (15 pages)	045113
Jean-Baptiste Morée, Robinson Outerovitch, and Bernard Amadon	
Tunable anomalous Hall transport in bulk and two-dimensional 1T-CrTe ₂ : A first-principles study (8 pages)	045114
Si Li, Shan-Shan Wang, Bo Tai, Weikang Wu, Bin Xiang, Xian-Lei Sheng, and Shengyuan A. Yang	
Origin of the magnetic and orbital ordering in α -Sr ₂ CrO ₄ (11 pages)	045115
Bradraj Pandey, Yang Zhang, Nitin Kaushal, Rahul Soni, Ling-Fang Lin, Wen-Jun Hu, Gonzalo Alvarez, and Elbio Dagotto	
Low-energy electrodynamics of Dirac semimetal phases in the doped Mott insulator Sr ₂ IrO ₄ (12 pages)	045116
Sun-Woo Kim, Myungjun Kang, and Sangmo Cheon	
☞ Solving the Bethe-Salpeter equation on a subspace: Approximations and consequences for low-dimensional materials (9 pages)	045117
Diana Y. Qiu, Felipe H. da Jornada, and Steven G. Louie	
Bethe strings in the spin dynamical structure factor of the Mott-Hubbard phase in the one-dimensional fermionic Hubbard model (29 pages)	045118
José M. P. Carmelo and Tilen Čadež	
Large band splitting with tunable spin polarization in the two-dimensional ferroelectric GaXY family ($X = \text{Se, Te; } Y = \text{Cl, Br, I}$) (10 pages)	045119
Moh. Adhib Ulil Absor and Fumiyuki Ishii	
Sparse modeling of large-scale quantum impurity models with low symmetries (8 pages)	045120
Hiroshi Shinaoka and Yuki Nagai	
Anisotropy of electronic correlations: On the applicability of local theories to layered materials (12 pages)	045121
B. Klebel-Knobloch, T. Schäfer, A. Toschi, and J. M. Tomczak	
Quantum oscillations of the magnetic torque in the nodal-line Dirac semimetal ZrSiS (8 pages)	045122
F. Orbanić, M. Novak, Z. Glumac, A. McCollam, L. Tang, and I. Kokanović	
Determination of the phase coherence length of PdCoO ₂ nanostructures by conductance fluctuation analysis (6 pages)	045123
T. Harada, P. Bredol, H. Inoue, S. Ito, J. Mannhart, and A. Tsukazaki	
Excitonic optical spectra and energy structures in a one-dimensional Mott insulator demonstrated by applying a many-body Wannier functions method to a charge model (15 pages)	045124
T. Yamaguchi, K. Iwano, T. Miyamoto, N. Takamura, N. Kida, Y. Takahashi, T. Hasegawa, and H. Okamoto	
Interplay of mass imbalance and frustration in correlated band insulators (13 pages)	045125
Anwesha Chattopadhyay	
☞ Attractive and repulsive dipolar interaction in bilayers of indirect excitons (10 pages)	045126
D. J. Choksy, Chao Xu, M. M. Fogler, L. V. Butov, J. Norman, and A. C. Gossard	

(Continued)

Tuning the electronic structure of d^0 perovskite oxides by combining distortive modes (8 pages)	045127
Dario V. Cirlincione and Robert F. Berger	
Correlated fragile topology: A parton approach (12 pages)	045128
Katherine Latimer and Chong Wang	
Polaronic effect of a metal layer on variable range hopping (14 pages)	045129
Ofek Asban, Alexander Burin, Alexander Shnirman, and Moshe Schechter	
Accurate correlation energy functional for uniform electron gas from an interpolation ansatz without fitting parameters (6 pages)	045130
Qing-Xing Xie, Jiashun Wu, and Yan Zhao	
Global optimization of tensor renormalization group using the corner transfer matrix (6 pages)	045131
Satoshi Morita and Naoki Kawashima	
Dynamical properties of a driven dissipative dimerized $S = \frac{1}{2}$ chain (32 pages)	045132
M. Yarmohammadi, C. Meyer, B. Fauseweh, B. Normand, and G. S. Uhrig	
Nonequilibrium steady-state theory of photodoped Mott insulators (13 pages)	045133
Jiajun Li and Martin Eckstein	
Electronic correlations in the semiconducting half-Heusler compound FeVSb (6 pages)	045134
Estiaque H. Shourov, Patrick J. Strohbeen, Dongxue Du, Abhishek Sharan, Felipe C. de Lima, Fanny Rodolakis, Jessica L. McChesney, Vincent Yannello, Anderson Janotti, Turan Birol, and Jason K. Kawasaki	
Chern insulating phases and thermoelectric properties of EuO/MgO(001) superlattices (8 pages)	045135
Okan Köksal and Rossitza Pentcheva	
Square-root topological semimetals (8 pages)	045136
Tomonari Mizoguchi, Tsuneya Yoshida, and Yasuhiro Hatsugai	
Kondo screening regimes in multi-Dirac and Weyl systems (10 pages)	045137
G. T. D. Pedrosa, Joelson F. Silva, and E. Vernek	
Nature of the magnetic stripes in fully oxygenated $\text{La}_2\text{CuO}_{4+y}$ (15 pages)	045138
Ana-Elena Țuțueanu, Henrik Jacobsen, Pia Jensen Ray, Sonja Holm-Dahlin, Monica-Elisabeta Lăcătușu, Tim Birger Tejsner, Jean-Claude Grivel, Wolfgang Schmidt, Rasmus Toft-Petersen, Paul Steffens, Martin Boehm, Barrett Wells, Linda Udby, Kim Lefmann, and Astrid Tranum Rømer	
Many-body localization as a percolation phenomenon (8 pages)	045139
P. Prelovšek, M. Mierzejewski, J. Krsnik, and O. S. Barišić	
Determining electronic properties from L -edge x-ray absorption spectra of transition metal compounds with artificial neural networks (33 pages)	045140
Johann Lüder	
Self-consistent Hubbard parameters from density-functional perturbation theory in the ultrasoft and projector-augmented wave formulations (14 pages)	045141
Iurii Timrov, Nicola Marzari, and Matteo Cococcioni	
Charge- and pair-density-wave orders in the one-band Hubbard model from dynamical mean field theory (10 pages)	045142
S. S. Dash and D. Sénéchal	

(Continued)

Semiconductors I: bulk

- Quasiparticle self-consistent *GW* band structures and high-pressure phase transitions of LiGaO_2 and NaGaO_2 (15 pages) 045201
Santosh Kumar Radha, Amol Ratnaparkhe, and Walter R. L. Lambrecht
- Band structure and topological phases of $\text{Pb}_{1-x-y}\text{Sn}_x\text{Mn}_y\text{Te}$ by *ab initio* calculations (10 pages) 045202
A. Łusakowski, P. Bogusławski, and T. Story
- Giant Nernst effect and field-enhanced transversal $z_N T$ in ZrTe_5 (7 pages) 045203
Peipei Wang, Chang-woo Cho, Fangdong Tang, Peng Wang, Wenjie Zhang, Mingquan He, Genda Gu, Xiaosong Wu, Yonghong Shao, and Liyuan Zhang

Semiconductors II: surfaces, interfaces, microstructures, and related topics

- Microwave quantum optics as a direct probe of the Overhauser field in a quantum dot circuit quantum electrodynamics device (6 pages) 045301
Pei-Qing Jin, Jan Jeske, Andrew D. Greentree, and Jared H. Cole
- Spatiotemporal scaling of two-dimensional nonequilibrium exciton-polariton systems with weak interactions (9 pages) 045302
Quanyu Mei, Kai Ji, and Michiel Wouters
- Anisotropic fermionic quasiparticles (15 pages) 045303
Seongjin Ahn and S. Das Sarma
- Direct observation of phonon Anderson localization in Si/Ge aperiodic superlattices (7 pages) 045304
Renjiu Hu and Zhiting Tian
- Longitudinal and transverse electric field manipulation of hole spin-orbit qubits in one-dimensional channels (17 pages) 045305
Vincent P. Michal, Benjamin Venitucci, and Yann-Michel Niquet
- Intensity equations for birefringent spin lasers (10 pages) 045306
Gaofeng Xu, Jiayu David Cao, Velimir Labinac, and Igor Žutić
- Photonic topological Weyl degeneracies and ideal type-I Weyl points in the gyromagnetic metamaterials (9 pages) 045307
Mingzhu Li, Jie Song, and Yongyuan Jiang
- Complexity of the dipolar exciton Mott transition in $\text{GaN}/(\text{AlGa})\text{N}$ nanostructures (14 pages) 045308
F. Chiaruttini, T. Guillet, C. Brimont, D. Scalbert, S. Cronenberger, B. Jouault, P. Lefebvre, B. Damilano, and M. Vladimirova

Surface physics, nanoscale physics, low-dimensional systems

- Thermoelectric generation of orbital magnetization in metals (5 pages) 045401
Cong Xiao, Huiying Liu, Jianzhou Zhao, Shengyuan A. Yang, and Qian Niu
-  Convenient Peierls phase choice for periodic atomistic systems under magnetic field (15 pages) 045402
Alessandro Cresti
- Coulomb interactions and renormalization of semi-Dirac fermions near a topological Lifshitz transition (9 pages) 045403
Valeri N. Kotov, Bruno Uchoa, and Oleg P. Sushkov

(Continued)

Gradient-index electron optics in graphene p - n junctions (10 pages)	045404
Emmanuel Paredes-Rocha, Yonatan Betancur-Ocampo, Nikodem Szpak, and Thomas Stegmann	
Edge and sublayer degrees of freedom for phosphorene nanoribbons with twofold-degenerate edge bands via electric field (9 pages)	045405
Yi Ren, Xiaoying Zhou, and Guanghui Zhou	
Magnetic ratchet effect in phosphorene (6 pages)	045406
Narjes Kheirabadi	
Surface plasmons on Pd(110): An <i>ab initio</i> calculation (9 pages)	045407
U. Muniain, R. Esteban, I. P. Chernov, J. Aizpurua, and V. M. Silkin	
☞ Quasicrystalline electronic states in twisted bilayers and the effects of interlayer and sublattice symmetries (16 pages)	045408
J. A. Crosse and Pilkyung Moon	
Delta- T noise in the Kondo regime (13 pages)	045409
Masahiro Hasegawa and Keiji Saito	
☞ Spin Weyl quantum unit: A theoretical proposal (9 pages)	045410
Y. Chen and Y. V. Nazarov	
Probing combinations of acoustic phonons in MoS ₂ by intervalley double-resonance Raman scattering (8 pages)	045411
Rafael N. Gontijo, Andreij Gadelha, Orlando J. Silveira, Ricardo W. Nunes, Marcos A. Pimenta, Ariete Righi, and Cristiano Fantini	
Influence of many-body effects on hole quasiparticle dynamics in a WS ₂ monolayer (10 pages)	045412
Fabio Bussolotti, Jing Yang, Hiroyo Kawai, Jing Yee Chee, and Kuan Eng Johnson Goh	
Quantum Zeno effect and quantum nondemolition spin measurement in a quantum dot–micropillar cavity in the strong coupling regime (15 pages)	045413
N. V. Leppen, L. Lanco, and D. S. Smirnov	
Higgs-like pair amplitude dynamics in superconductor–quantum-dot hybrids (11 pages)	045414
Mathias Kamp and Björn Sothmann	
Calculation of two-photon absorption by nanocrystals of CsPbBr ₃ (11 pages)	045415
S. A. Blundell, T. P. T. Nguyen, and C. Guet	
Tunable plasmonic bound states in the continuum in the visible range (9 pages)	045416
Shuoyan Sun, Yufeng Ding, Haozhi Li, Peng Hu, Chang-Wei Cheng, Yungang Sang, Fengzhao Cao, Yue Hu, Andrea Alù, Dahe Liu, Zhaona Wang, Shangjr Gwo, Dezhuan Han, and Jinwei Shi	
Band alignment of transition metal dichalcogenide heterostructures (10 pages)	045417
Francis H. Davies, Conor J. Price, Ned T. Taylor, Shane G. Davies, and Steven P. Hepplestone	
Mechanisms of frictional energy dissipation at graphene grain boundaries (10 pages)	045418
Xiang Gao, Wengen Ouyang, Oded Hod, and Michael Urbakh	
Coupling of nanoantennas in loss-gain environment for application in active tunable metasurfaces (7 pages)	045419
Y. Liang, Q. Gaimard, V. Klimov, A. Uskov, H. Benisty, A. Ramdane, and A. Lupu	

(Continued)

Non-Hermitian second-order skin and topological modes (<i>14 pages</i>)	045420
Yongxu Fu, Jihan Hu, and Shaolong Wan	
Interacting quantum plasmons in metal-dielectric structures (<i>9 pages</i>)	045421
Tigran V. Shahbazyan	
Arbitrary polarization-independent backscattering or reflection by rotationally symmetric reciprocal structures (<i>7 pages</i>)	045422
Weijin Chen, Qingdong Yang, Yuntian Chen, and Wei Liu	
Fluence-dependent dynamics of localized excited species in monolayer versus bulk MoS ₂ (<i>9 pages</i>)	045423
Tim Völzer, Franziska Fennel, Tobias Korn, and Stefan Lochbrunner	
Floquet generation of a second-order topological superconductor (<i>9 pages</i>)	045424
Arnob Kumar Ghosh, Tanay Nag, and Arijit Saha	
Bloch-Grüneisen temperature and universal scaling of normalized resistivity in doped graphene revisited (<i>6 pages</i>)	045425
Khoe Van Nguyen and Yia-Chung Chang	
Exciton-exciton interaction in transition metal dichalcogenide monolayers and van der Waals heterostructures (<i>8 pages</i>)	045426
Daniel Erkensten, Samuel Brem, and Ermin Malic	
Electronic heat current fluctuations in a quantum dot (<i>6 pages</i>)	045427
A. Crépieux	
Phase diagram and quantum transport in a semiconductor-superconductor hybrid nanowire with long-range pairing interactions (<i>15 pages</i>)	045428
Jun-Tong Ren, Sha-Sha Ke, Yong Guo, Huai-Wu Zhang, and Hai-Feng Lü	