

LETTERS

Inhomogeneous, disordered, and partially ordered systems

- Anomalous multifractality in quantum chains with strongly correlated disorder (6 pages) L020201
Alexander Duthie, Sthitadhi Roy, and David E. Logan

- Bath-induced delocalization in interacting disordered spin chains (5 pages) L020202
Dries Sels

Dynamics, dynamical systems, lattice effects:

- Buildup dynamics of room-temperature polariton condensation (6 pages) L020301
Fei Chen, Hang Zhou, Ziyu Ye, Song Luo, Zheng Sun, Yuanlin Zheng, Xianfeng Chen,
Huailiang Xu, Hongxing Xu, Tim Byrnes, Hui Li, Zhanghai Chen, and Jian Wu

Magnetism

- Unbiased identification of the Griffiths phase in intercalated transition metal dichalcogenides by using
Lee-Yang zeros (5 pages) L020401
A. S. Ovchinnikov, J. G. Ruziev, N. M. Nosova, E. M. Sherokalova, N. V. Selezneva, and N. V. Baranov

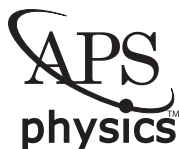
- Free energy of twisting spins in Mn_3Sn (5 pages) L020402
Xiaokang Li, Shan Jiang, Qingkai Meng, Huakun Zuo, Zengwei Zhu, Leon Balents, and Kamran Behnia

- Antichiral order and spin reorientation transitions of triangle-based antiferromagnets (5 pages) L020403
Leon Balents

- Spin wave driven domain wall motion in easy-plane ferromagnets: A particle perspective (6 pages) L020404
Jin Lan (兰金) and Jiang Xiao (萧江)

- Coupled frustrated ferromagnetic and antiferromagnetic quantum spin chains in the quasi-one-dimensional
mineral antlerite $\text{Cu}_3\text{SO}_4(\text{OH})_4$ (7 pages) L020405
Anton A. Kulbakov, Denys Y. Kononenko, Satoshi Nishimoto, Quirin Stahl,
Aswathi Mannathanath Chakkingal, Manuel Feig, Roman Gumenuik, Yuri Skourski, Lakshmi Bhaskaran,
Sergei A. Zvyagin, Jan Peter Embs, Inés Puente-Orench, Andrew Wildes, Jochen Geck, Oleg Janson,
Dmytro S. Inosov, and Darren C. Peets

- Origin of the spin-crossover phenomenon in LaCoO_3 (5 pages) L020406
K. Katsumata



Superfluidity and superconductivity

Magnetically textured superconductivity in elemental rhenium (<i>9 pages</i>)	L020501
Gábor Csire, James F. Annett, Jorge Quintanilla, and Balázs Újfalussy	
Preformed Cooper pairs in flat-band semimetals (<i>5 pages</i>)	L020502
Alexander A. Zyuzin and A. Yu. Zyuzin	
Strongly correlated crystalline higher-order topological phases in two-dimensional systems: A coupled-wire study (<i>7 pages</i>)	L020503
Jian-Hao Zhang	
Time-reversal symmetry breaking in the superconducting state of ScS (<i>6 pages</i>)	L020504
Arushi, R. K. Kushwaha, D. Singh, A. D. Hillier, M. S. Scheurer, and R. P. Singh	

ARTICLES**Structure, structural phase transitions, mechanical properties, defects**

Nonreciprocal acoustic transmission through dynamic multilayer structures (<i>8 pages</i>)	024101
A. Paliovaivos and N. Stefanou	
Formation of solid SiO ₂ He compound at high pressure and high temperature (<i>6 pages</i>)	024102
Shicong Ding, Pan Zhang, Kang Yang, Cailong Liu, Jian Hao, Wenwen Cui, Jingming Shi, and Yinwei Li	
Local atomic structure distortions in the Dion-Jacobson ferroelectric CsBiNb ₂ O ₇ (<i>6 pages</i>)	024103
Jing Kong, Sanjeev K. Nayak, Jue Liu, S. Pamir Alpay, and Abhijit Pramanick	
Zeeman-type energy level splittings controlled by an electric field (<i>5 pages</i>)	024104
Hong Jian Zhao, Yanchao Wang, Yurong Yang, Yanming Ma, and Laurent Bellaiche	
Diffusion of elastic waves in a continuum solid with a random array of pinned dislocations (<i>18 pages</i>)	024105
Dmitry Churochkin and Fernando Lund	
Magnetochemical effects on phase stability and vacancy formation in fcc Fe-Ni alloys (<i>12 pages</i>)	024106
Kangming Li, Chu-Chun Fu, Maylise Nastar, Frédéric Soisson, and Mikhail Yu. Lavrentiev	
Atomistic investigation of cavitation and ablation in tantalum foils under irradiation with x-rays approaching 5 keV (<i>23 pages</i>)	024107
M. J. Duff, P. G. Heighway, J. D. McHardy, A. D'Souza, R. S. McWilliams, J. S. Wark, and M. I. McMahon	
Intrinsic flexoelectricity of van der Waals epitaxial thin films (<i>9 pages</i>)	024108
Longlong Shu, Zhiguo Wang, Renhong Liang, Zhen Zhang, Shengwen Shu, Changxin Tang, Fei Li, Ren-Kui Zheng, Shanming Ke, and Gustau Catalan	
<i>Ab initio</i> calculations for the transport properties of metals within Boltzmann transport theory: From equilibrium to nonequilibrium heating regime (<i>13 pages</i>)	024109
N. A. Smirnov	
Domain switching dynamics in topological antiferroelectric vortex domains (<i>11 pages</i>)	024110
K. L. Yang, H. L. Lin, L. Lin, Z. B. Yan, J.-M. Liu, and S.-W. Cheong	
Thermodynamics of polarization dynamics in ferroelectrics implemented by the phase field model (<i>18 pages</i>)	024111
Haohua Wen, Jianyi Liu, Weijin Chen, Weiming Xiong, and Yue Zheng	

(Continued)

Diversity of structural phases in $AGeX_3$ halides (10 pages)	024112
Yaorong Luo, Hao Tian, Xu Li, Lan Chen, Yurong Yang, and Di Wu	
Structural stability of orthorhombic $DyScO_3$ under extreme conditions of pressure and temperature (12 pages)	024113
Neha Bura, Velaga Srihari, Ankit Bhoirya, Deepa Yadav, Jasveer Singh, Himanshu K. Poswal, and Nita Dilawar Sharma	
Elastic response of monolayer $Si_{1-x}Ge_x$ (8 pages)	024114
Xiaoyang Ma, Tong Yang, Dechun Li, and Yuanping Feng	
Inhomogeneous, disordered, and partially ordered systems	
Localized states in local isomorphism classes of pentagonal quasicrystals (20 pages)	024201
M. Ö. Oktel	
Coexistence of extended and localized states in the one-dimensional non-Hermitian Anderson model (6 pages)	024202
Cem Yuce and Hamidreza Ramezani	
An $\ell_0\ell_2$ -norm regularized regression model for construction of robust cluster expansions in multicomponent systems (9 pages)	024203
Peichen Zhong, Tina Chen, Luis Barroso-Luque, Fengyu Xie, and Gerbrand Ceder	
Localization and multifractal properties of the long-range Kitaev chain in the presence of an Aubry-André-Harper modulation (12 pages)	024204
Joana Fraxanet, Utso Bhattacharya, Tobias Grass, Maciej Lewenstein, and Alexandre Dauphin	
Dynamics, dynamical systems, lattice effects:	
Amplification of quantum signals by the non-Hermitian skin effect (9 pages)	024301
Qiang Wang, Changyan Zhu, You Wang, Baile Zhang, and Y. D. Chong	
Relaxation of antiferromagnetic order and growth of Rényi entropy in a generalized Heisenberg star (11 pages)	024302
Jiaxiu Li, Ye Cao, and Ning Wu	
Anharmonic phonon renormalization and thermal transport in the type-I $Ba_8Ga_{16}Sn_{30}$ clathrate from first principles (9 pages)	024303
Masato Ohnishi, Terumasa Tadano, Shinji Tsuneyuki, and Junichiro Shiomi	
Enhanced entanglement negativity in boundary-driven monitored fermionic chains (11 pages)	024304
Xhek Turkeshi, Lorenzo Piroli, and Marco Schiró	
Measurement-induced phase transition in a chaotic classical many-body system (7 pages)	024305
Josef Willsher, Shu-Wei Liu, Roderich Moessner, and Johannes Knolle	
Nonequilibrium scalar field dynamics starting from Fock states: Absence of thermalization in one-dimensional phonons coupled to fermions (20 pages)	024306
Md Mursalin Islam and Rajdeep Sensarma	
Classical algorithms for many-body quantum systems at finite energies (10 pages)	024307
Yilun Yang, J. Ignacio Cirac, and Mari Carmen Bañuls	
Rayleigh waves and cyclotron surface modes of gyroscopic metamaterials (11 pages)	024308
Filip Marijanović, Sergej Moroz, and Bhilahari Jeevanesan	

(Continued)

Fast scrambling dynamics and many-body localization transition in an all-to-all disordered quantum spin model (8 pages)	024309
Shang-Shu Li, Rui-Zhen Huang, and Heng Fan	
Uhlmann holonomy against Lindblad dynamics of topological systems at finite temperatures (10 pages)	024310
Yan He and Chih-Chun Chien	
Dynamical and excited-state quantum phase transitions in collective systems (21 pages)	024311
Ángel L. Corps and Armando Relaño	
Many-body Green's function approach to lattice thermal transport (25 pages)	024312
Giovanni Caldarelli, Michele Simoncelli, Nicola Marzari, Francesco Mauri, and Lara Benfatto	
Terahertz-induced high-order harmonic generation and nonlinear charge transport in graphene (8 pages)	024313
Wenwen Mao, Angel Rubio, and Shunsuke A. Sato	
Magnetism	
☞ Negative-chirality order in the $S = \frac{1}{2}$ kagome antiferromagnet $\text{CdCu}_3(\text{OH})_6(\text{NO}_3)_2 \cdot \text{H}_2\text{O}$ (6 pages)	024401
Yoshihiko Ihara, Ryoga Hiyoshi, Masakazu Shimohashi, Kaoru Hayashi, Ryutaro Okuma, Fabio Orlandi, Pascal Manuel, Gøran J. Nilsen, and Zenji Hiroi	
Anomalous low-temperature physical properties of the ytterbium-based Kondo-lattice compounds Yb_4TGe_8 ($T = \text{Cr, Mn, Fe, Co, and Ni}$) (12 pages)	024402
Shunsuke Yamanaka, Masahito Hikiji, Chishiro Michioka, Hiroaki Ueda, Akira Matsuo, Koichi Kindo, Hitoshi Yamaoka, Naohito Tsujii, and Kazuyoshi Yoshimura	
Numerical model of harmonic Hall voltage detection for spintronic devices (9 pages)	024403
Sławomir Ziętek, Jakub Mojsiejuk, Krzysztof Grochot, Stanisław Łazarski, Witold Skowroński, and Tomasz Stobiecki	
☞ Tracking the evolution from isolated dimers to many-body entanglement in $\text{NaLu}_x\text{Yb}_{1-x}\text{Se}_2$ (8 pages)	024404
Luke Pritchard Cairns, Ryan Day, Shannon Haley, Nikola Maksimovic, Josue Rodriguez, Hossein Taghinejad, John Singleton, and James Analytis	
Nonlinear spin Hall effect in $\mathcal{PT}$ -symmetric collinear magnets (9 pages)	024405
Satoru Hayami, Megumi Yatsushiro, and Hiroaki Kusunose	
Frustration-induced diffusive scattering anomaly and dimension change in FeGe_2 (6 pages)	024406
Yaokun Su, Hillary L. Smith, Matthew B. Stone, Douglas L. Abernathy, Mark D. Lumsden, Carl P. Adams, and Chen Li	
Synthesis and physical and magnetic properties of $\text{CuAlCr}_4\text{S}_8$: A Cr-based breathing pyrochlore (7 pages)	024407
S. Sharma, M. Pocrnic, B. N. Richtig, C. R. Wiebe, J. Beare, J. Gautreau, J. P. Clancy, J. P. C. Ruff, M. Pula, Q. Chen, S. Yoon, Y. Cai, and G. M. Luke	
Violation of the rule of parsimony: Mixed local moment and itinerant Fe magnetism in Fe_3GeN (7 pages)	024408
Mari Tsumuraya and David J. Singh	
Orbital ordering and quasi-two-dimensional magnetism in AMnF_4 ($A = \text{K, Rb}$): A first-principles study (10 pages)	024409
Anuroopa Behatha, Tulika Maitra, Alexander N. Rudenko, and V. Kanchana	
Theory of magnetic spin and orbital Hall and Nernst effects in bulk ferromagnets (12 pages)	024410
Leandro Salemi and Peter M. Oppeneer	

(Continued)

Scattering phenomena for spin transport in a Kitaev spin liquid (<i>15 pages</i>)	024411
Joji Nasu, Yuta Murakami, and Akihisa Koga	
Antiferromagnetic resonances in twinned EuFe_2As_2 single crystals (<i>8 pages</i>)	024412
I. A. Golovchanskiy, N. N. Abramov, V. A. Vlasenko, K. Pervakov, I. V. Shchetinin, P. S. Dzhumaev, O. V. Emelyanova, D. S. Baranov, D. S. Kalashnikov, K. B. Polevoy, V. M. Pudalov, and V. S. Stolyarov	
Thermal Hall effect in the Kitaev-Heisenberg system with spin-phonon coupling (<i>7 pages</i>)	024413
Shaozhi Li and Satoshi Okamoto	
Spin stripe fluctuations in antiferromagnetic $\text{Pr}_{2-x}\text{Sr}_x\text{NiO}_{4+\delta}$ (<i>5 pages</i>)	024414
Avishek Maity, Rajesh Dutta, and Werner Paulus	
Dynamics of magnetic skyrmions driven by a temperature gradient in a chiral magnet FeGe (<i>8 pages</i>)	024415
Gang Qin, Xichao Zhang, Ruixuan Zhang, Ke Pei, Chendi Yang, Chunyang Xu, Yan Zhou, Yizheng Wu, Haifeng Du, and Renchao Che	
Weak ferromagnetism and spin reorientation in antiferroelectric BiCrO_3 (<i>8 pages</i>)	024416
Dylan Behr, Davide Delmonte, Edmondo Gilioli, Dmitry D. Khalyavin, and Roger D. Johnson	
Micromagnetically integrated numerical model of spin pumping based on spin diffusion (<i>7 pages</i>)	024417
Markus Gatttringer, Claas Abert, Florian Bruckner, Andrii Chumak, and Dieter Suess	
A-type antiferromagnetic order in semiconducting EuMg_2Sb_2 single crystals (<i>14 pages</i>)	024418
Santanu Pakhira, Farhan Islam, Evan O'Leary, M. A. Tanatar, Thomas Heitmann, Lin-Lin Wang, R. Prozorov, Adam Kaminski, David Vaknin, and D. C. Johnston	
Large Dzyaloshinskii-Moriya interaction and field-free topological chiral spin states in two-dimensional alkali-based chromium chalcogenides (<i>12 pages</i>)	024419
Peng Li, Qirui Cui, Yonglong Ga, Jinghua Liang, and Hongxin Yang	
Canted antiferromagnetic phases in the candidate layered Weyl material EuMnSb_2 (<i>16 pages</i>)	024420
J. M. Wilde, S. X. M. Riberolles, Atreyee Das, Y. Liu, T. W. Heitmann, X. Wang, W. E. Straszheim, S. L. Bud'ko, P. C. Canfield, A. Kreyssig, R. J. McQueeney, D. H. Ryan, and B. G. Ueland	
Electronic chiralization as an indicator of the anomalous Hall effect in unconventional magnetic systems (<i>13 pages</i>)	024421
Hua Chen	
Néel vector driven spin current in a van der Waals antiferromagnetic insulator (CrCl_3)/heavy metal (Pt) bilayer (<i>8 pages</i>)	024422
Ledong Wang, Yue Zhao, Qi Zhang, Jianshu Xue, Jiajun Guo, Yanxue Chen, Yufeng Tian, Shishen Yan, Lihui Bai, and Michael Harder	
Spin-transfer-assisted parametric pumping of magnons in yttrium iron garnet (<i>8 pages</i>)	024423
Therese Frostad, Hans L. Skarsvåg, Alireza Qaiumzadeh, and Arne Brataas	
Interface engineering of phase separation in $\text{SrRuO}_3/\text{SrTiO}_3$ hybrid superlattices (<i>6 pages</i>)	024424
Zhangzhang Cui, Yingying Zhang, Xiaofang Zhai, Hanghui Chen, Yi-De Chuang, Jinghua Guo, Zhengping Fu, Zhengcao Li, and Yalin Lu	
Ghost surface polariton in antiferromagnets (<i>6 pages</i>)	024425
Haoyuan Song, Xiangguang Wang, Yuqi Zhang, Shaopeng Hao, and Xuan-Zhang Wang	

(Continued)

Deformed spin- $\frac{1}{2}$ square lattice in antiferromagnetic $\text{NaZnVOPO}_4(\text{HPO}_4)$ (12 pages)	024426
S. Guchhait, D. V. Ambika, Qing-Ping Ding, M. Uhlarz, Y. Furukawa, A. A. Tsirlin, and R. Nath	
Superfluidity and superconductivity	
Vortex control in superconducting Corbino geometry networks (14 pages)	024501
T. Okugawa, S. Park, P. Recher, and D. M. Kennes	
Condensation in hybrid superconducting-cavity-microscopic-spins systems with finite-bandwidth drive (14 pages)	024502
R. Au-Yeung, M. H. Szymańska, and E. Ginossar	
Quasi-uniaxial pressure induced superconductivity in the stoichiometric compound UTe_2 (11 pages)	024503
Chongli Yang, Jing Guo, Shu Cai, Yazhou Zhou, Vladimir A. Sidorov, Cheng Huang, Sijin Long, Youguo Shi, Qiuyun Chen, Shiyong Tan, Qi Wu, Piers Coleman, Tao Xiang, and Liling Sun	
Probing superconducting gap of the high-entropy alloy $\text{Ta}_{1/6}\text{Nb}_{2/6}\text{Hf}_{1/6}\text{Zr}_{1/6}\text{Ti}_{1/6}$ via Andreev reflection spectroscopy (6 pages)	024504
Vuong Thi Anh Hong, Harim Jang, Soon-Gil Jung, Yoonseok Han, Jin Hee Kim, Rahmatul Hidayati, Jong-Soo Rhyee, and Tuson Park	
Pseudogap phase and fractionalization: Predictions for Josephson junction setup (15 pages)	024505
Anurag Banerjee, Alvaro Ferraz, and Catherine Pépin	
Two-dimensional paired topological superfluids of Rydberg Fermi gases (12 pages)	024506
Ching-Yu Huang, Jiawei Zhuang, Po-Yao Chang, and Daw-Wei Wang	
Acoustic-phonon-mediated superconductivity in moiréless graphene multilayers (17 pages)	024507
Yang-Zhi Chou, Fengcheng Wu, Jay D. Sau, and Sankar Das Sarma	
Vortex lattice melting line in superconductors with paramagnetic pair breaking (10 pages)	024508
Dai Nakashima and Ryusuke Ikeda	
Thermodynamic and dynamical signatures of a quantum spin Hall insulator to superconductor transition (7 pages)	024509
Martin Hohenadler, Yuhai Liu, Toshihiro Sato, Zhenjiu Wang, Wenan Guo, and Fakher F. Assaad	
Algebraic canonical quantization of lumped superconducting networks (22 pages)	024510
I. L. Egusquiza and A. Parra-Rodriguez	
Interplay of finite-energy and finite-momentum superconducting pairing (12 pages)	024511
Debmalya Chakraborty and Annica M. Black-Schaffer	
Tuning of quantum entanglement in a superconductor with transition-metal and rare-earth impurities: Effect of potential scattering on quantum phase transitions (8 pages)	024512
N. Ebrahimian, M. Khosrojerdi, and R. Afzali	
Yu-Shiba-Rusinov states, BCS-BEC crossover, and exact solution in the flat-band limit (18 pages)	024513
R. Žitko and L. Pavešić	
Coupling the Higgs mode and ferromagnetic resonance in spin-split superconductors with Rashba spin-orbit coupling (5 pages)	024514
Yao Lu, Risto Ojajarvi, P. Virtanen, M. A. Silaev, and Tero T. Heikkilä	

(Continued)

Doping effects on the stability and superconductivity of penta-graphene-like ZrH_{10} and HfH_{10} under pressure (5 pages)	024515
Hulei Yu and Yue Chen	
Superconductivity modulated by structural phase transitions in pressurized vanadium-based kagome metals (6 pages)	024516
Feng Du, Rui Li, Shuaishuai Luo, Yu Gong, Yanchun Li, Sheng Jiang, Brenden R. Ortiz, Yi Liu, Xiaofeng Xu, Stephen D. Wilson, Chao Cao, Yu Song, and Huiqiu Yuan	
Ubiquitous stripe phase and enhanced electron pairing in the interfacial high- T_c superconductor $\text{FeSe}/\text{BaTiO}_3$ (6 pages)	024517
Xuemin Fan, Wenqiang Cui, Yonghao Yuan, Qi-Kun Xue, and Wei Li	
Chiral $\text{SO}(4)$ spin-valley density wave and degenerate topological superconductivity in magic-angle twisted bilayer graphene (23 pages)	024518
Chen Lu, Yongyou Zhang, Yu Zhang, Ming Zhang, Cheng-Cheng Liu, Yu Wang, Zheng-Cheng Gu, Wei-Qiang Chen, and Fan Yang	
High-temperature superconducting ternary Li-R-H superhydrides at high pressures ($R = \text{Sc, Y, La}$) (8 pages)	024519
Ying Sun, Yanchao Wang, Xin Zhong, Yu Xie, and Hanyu Liu	
Strong increase in ultrasound attenuation below T_c in Sr_2RuO_4 : Possible evidence for domains (8 pages)	024520
Sayak Ghosh, Thomas G. Kiely, Arkady Shekhter, F. Jerzembeck, N. Kikugawa, Dmitry A. Sokolov, A. P. Mackenzie, and B. J. Ramshaw	