

LETTERS

Structure, structural phase transitions, mechanical properties, defects

- First-principles study of proton migration in indium oxide (6 pages) L220101
Mathilde L. D. Franckel, Mark E. Turiansky, Dominic Waldhör, and Chris G. Van de Walle

- Ab initio* finite-temperature elasto-optic response in ferroelectrics: The case of BaTiO₃
and Ba_{1-x}Sr_xTiO₃ (6 pages) L220102
Sergey Prosandeev, Charles Paillard, and L. Bellaiche

Inhomogeneous, disordered, and partially ordered systems

- Computing Riemann zeros with light scattering (6 pages) L220201
Sunkyu Yu, Xianji Piao, and Namkyoo Park

- Fluctuations of quantum coherences in the Anderson model are described by the quantum symmetric simple
exclusion process (6 pages) L220202
Ludwig Hruza and Tony Jin

Dynamics, dynamical systems, lattice effects:

- Genuine multipartite entanglement induced by a thermal acoustic reservoir (8 pages) L220301
Qing-Yang Qiu, Zhi-Guang Lu, Qiongyi He, Ying Wu, and Xin-You Lü

- Spin coherence in strongly coupled spin baths in quasi-two-dimensional layers (7 pages) L220302
Philip Schätzle, Reyhaneh Ghassemizadeh, Daniel F. Urban, Thomas Wellens, Peter Knittel,
Florentin Reiter, Jan Jeske, and Walter Hahn

- Quantum hard disks on a lattice (6 pages) L220303
Vighnesh Dattatraya Naik, Fabian Ballar Trigueros, and Markus Heyl

Magnetism

-  Pressure-induced quantum melting of chiral spin order and subsequent transition to a degenerate semiconductor
state in FeGe (7 pages) L220401
Y. Fujishiro, C. Terakura, A. Miyake, N. Kanazawa, K. Nakazawa, N. Ogawa, H. Kadobayashi,
S. Kawaguchi, T. Kagayama, M. Tokunaga, Y. Kato, Y. Motome, K. Shimizu, and Y. Tokura

- Valley polarization in twisted altermagnetism (6 pages) L220402
San-Dong Guo, Yichen Liu, Junxi Yu, and Cheng-Cheng Liu

- Local spin-flip transitions induced by magnetic quantum impurities in two-dimensional magnets (6 pages) L220403
Tim Bauer, Lucas R. D. Freitas, Eric C. Andrade, Reinhold Egger, and Rodrigo G. Pereira



(Continued)



Field-induced magnetization of δ -plutonium from density functional theory (5 pages)	L220404
Per Söderlind, B. Sadigh, and A. Landa	
Exploring topological spin order by inverse Hamiltonian design: A stabilization mechanism for square skyrmion crystals (6 pages)	L220405
Kazuki Okigami and Satoru Hayami	
Ergodicity transitions in spin spiral domains in amorphous FeGe thin films (6 pages)	L220406
A. Singh, E. Hollingworth, S. A. Morley, A. Us Saleheen, R. Tumbleson, D. Raftrey, M. R. McCarter, P. Fischer, F. Hellman, S. D. Kevan, and S. Roy	
Emergence of giant spin-orbit torque in a two-dimensional hole gas on the hydrogen-terminated diamond surface (7 pages)	L220407
Fujio Sako, Ryo Ohshima, Yuichiro Ando, Naoya Morioka, Hiroyuki Kawashima, Riku Kawase, Norikazu Mizuochi, Hans Huebl, and Masashi Shiraishi	
Giant Rashba spin-orbit coupling on light-element polar superlattices (6 pages)	L220408
Yusuf Wicaksono, Jing-Yang You, Bo Gu, Alexander Evseev, Irina Piyanzina, Koichi Kusakabe, Seiji Yunoki, and Sadamichi Maekawa	
Van der Waals spin-orbit torque antiferromagnetic memory (7 pages)	L220409
Lishu Zhang, Zhengping Yuan, Jie Yang, Jun Zhou, Yanyan Jiang, Hui Li, Yongqing Cai, Evgeny Y. Tsymbal, Yuan Ping Feng, Zhifeng Zhu, and Lei Shen	
Local dynamics and detection of topology in spin-1 chains (6 pages)	L220410
Alfonso Maiellaro, Hervé Aubin, Andrej Mesaros, and Pascal Simon	
Altermagnetic variants in thin films of Mn_5Si_3 (7 pages)	L220411
Javier Rial, Miina Leiviskä, Gregor Skobjin, Antonín Bad'ura, Gilles Gaudin, Florian Disdier, Richard Schlitz, Ismaïla Kounta, Sebastian Beckert, Dominik Kriegner, Andy Thomas, Eva Schmoranzarová, Libor Šmejkal, Jairo Sinova, Tomáš Jungwirth, Lisa Michez, Helena Reichlová, Sebastian T. B. Goennenwein, Olena Gomonyay, and Vincent Baltz	
Superfluidity and superconductivity	
Superconducting magnetoelectric effects in mesoscopic hybrid structures (7 pages)	L220501
Mostafa Tanhayi Ahari and Yaroslav Tserkovnyak	
Photonic heat transport through a Josephson junction in a resistive environment (6 pages)	L220502
A. Levy Yeyati, D. Subero, J. P. Pekola, and R. Sánchez	
Unconventional superconductivity in altermagnets with spin-orbit coupling (6 pages)	L220503
Vanuildo S. de Carvalho and Hermann Freire	
Intermediate-temperature resistivity in the electron-doped cuprate $\text{La}_{2-x}\text{Ce}_x\text{CuO}_{4+\delta}$: Insights into the doping-independent T^2 behavior (7 pages)	L220504
Jinsong Zhang, Sijia Tu, Zefeng Lin, Beiyi Zhu, Jie Yuan, Yangmu Li, Qihong Chen, F. V. Kusmartsev, and Kui Jin	
Preparation and readout of Majorana qubits in magnet-superconductor hybrid systems (7 pages)	L220505
Dan Crawford, Roland Wiesendanger, and Stephan Rachel	
Supersolid phase in the diluted Holstein model (6 pages)	L220506
Jingyao Meng, Yuxi Zhang, Rafael M. Fernandes, Tianxing Ma, and R. T. Scalettar	

(Continued)

ARTICLES

Structure, structural phase transitions, mechanical properties, defects

Shock compression pathways to pyrite silica from machine learning simulations (7 pages)	224101
Shuning Pan, Jiuyang Shi, Zhixin Liang, Cong Liu, Junjie Wang, Yong Wang, Hui-Tian Wang, Dingyu Xing, and Jian Sun	
Globally stable and metastable crystal structure enumeration using polynomial machine learning potentials for elemental As, Bi, Ga, In, La, P, Sb, Sn, and Te (19 pages)	224102
Atsuto Seko	
Fractal ground state of mesoscopic ion chains in periodic potentials (15 pages)	224103
Raphaël Menu, Jorge Yago Malo, Vladan Vuletić, Maria Luisa Chiofalo, and Giovanna Morigi	
Evolution of topological Dirac-line semimetal phases in a three-dimensional acoustic rhombohedral graphite (11 pages)	224104
Hua-Shan Lai, Cheng He, and Yan-Feng Chen	
Polar vortex generation and control in a ferroelectric nanodisk (13 pages)	224105
Wenbo Ma, Shuai Yuan, Yulan Liu, and Biao Wang	
Broad central line observed in electron spin resonance experiments on hydrogen atom isotopes in solid molecular films of hydrogen isotopes (7 pages)	224106
S. Sheludiakov, J. Ahokas, J. Järvinen, S. Vasiliev, C. K. Wetzel, D. M. Lee, and V. V. Khmelenko	
Multiphase equation of state for magnesium based on first-principles simulations (17 pages)	224107
Li-Ting Li, Xing-Yu Gao, Hai-Feng Liu, Jia-Wei Xian, Fu-Yang Tian, and Hai-Feng Song	
Exploring four-dimensional topological manifolds of non-Hermitian bands from Klein bottles to spun trefoil knots (11 pages)	224108
Weixuan Zhang, Hao Yuan, Wenhui Cao, and Xiangdong Zhang	
H ₂ -CH ₄ van der Waals compounds under rapid compression (8 pages)	224109
Jinwei Yan, Israel Osmond, Ross T. Howie, Eugene Gregoryanz, and Miriam Peña-Alvarez	
Reentrant polar phase induced by the ferroionic coupling in Bi _{1-x} Sm _x FeO ₃ nanoparticles (18 pages)	224110
Anna N. Morozovska, Eugene A. Eliseev, Igor V. Fesych, Yuriy O. Zagorodniy, Oleksandr S. Pylypchuk, Evgenii V. Leonenko, Maxim V. Rallev, Andrii D. Yaremkevych, Lesya P. Yurchenko, Lesya Demchenko, Sergei V. Kalinin, and Olena M. Fesenko	
Exotic properties and manipulation in the two-dimensional semimetal α -Mn ₂ B ₂ (OH) ₂ : A theoretical study (12 pages)	224111
Pingwei Liu, Dan Liu, Shixin Song, Kang Li, Jun Chen, Xueyong Yuan, and Jie Guan	
Nature of the morphotropic phase boundary in the lead-free piezoelectric systems K _{1/2} Bi _{1/2} (M _{1/3} Nb _{2/3}) _x Ti _{1-x} O ₃ (M=Mg, Zn) (14 pages)	224112
Pooja Punetha, Vimlesh Chouhan, Gobinda Das Adhikary, Pavan Nukala, and Rajeev Ranjan	
Role of native point defects and Hg impurities in the electronic properties of Bi ₄ I ₄ (9 pages)	224113
Gustavo H. Cassemiro, C. David Hinostroza, Leandro Rodrigues de Faria, Daniel A. Mayoh, Jie Liu, Maria C. O. Aguiar, Martin R. Lees, Geetha Balakrishnan, J. Larrea Jiménez, Antonio Jefferson da Silva Machado, Valentina Martelli, and Walber H. Brito	

(Continued)

Inhomogeneous, disordered, and partially ordered systems

- Entanglement dynamics and eigenstate correlations in strongly disordered quantum many-body systems (18 pages) 224201
Bikram Pain and Sthitadhi Roy

-  Quantum noise in time-dependent media and cosmic expansion (17 pages) 224202
Ziv Landau and Ulf Leonhardt

Dynamics, dynamical systems, lattice effects:

- Cryogenic thermal transport properties from accelerated first-principles calculations:
Role of boundary and isotope scattering (13 pages) 224301
Xinyu Zhang, Cheng Shao, and Hua Bao
- Fisher zeroes and dynamical quantum phase transitions for two- and three-dimensional models (14 pages) 224302
Tomasz Masłowski, Hadi Cheraghi, Jesko Sirker, and Nicholas Sedlmayr
- Tuning photostriction in $\text{PbTiO}_3/\text{SrTiO}_3$ superlattices: An *ab initio* study (11 pages) 224303
Carmel Dansou, Charles Paillard, and Laurent Bellaiche
- Loop unitary and phase band topological invariant in generic multiband Chern insulators (12 pages) 224304
Xi Wu, Ze Yang, and Fuxiang Li
- Temperature-mediated backaction in micromechanical and nanomechanical resonators (11 pages) 224305
L. Bellon and P. Verlot
- Boundary dissipative spin chains with partial solvability inherited from system Hamiltonians (20 pages) 224306
Chihiro Matsui and Naoto Tsuji

Magnetism

- Anisotropic magnetization dynamics in Fe_5GeTe_2 at room temperature (15 pages) 224401
Alapan Bera, Nirmalya Jana, Amit Agarwal, and Soumik Mukhopadhyay
- Thermal decay of two-spinon bound states in quasi-two-dimensional triangular antiferromagnets (13 pages) 224402
I. L. Pomponio, E. A. Ghioldi, C. J. Gazza, L. O. Manuel, and A. E. Trumper
- Damping- and field-like spin torques at an interface between half-metals (8 pages) 224403
V. Shablenko and Ya. B. Bazaliy
- Ground state phase diagram and the exotic phases in spin- $\frac{1}{2}$ square lattice J_1 - J_2 - J_χ model (9 pages) 224404
Jianwei Yang, Zhao Liu, and Ling Wang
- Magnetic properties of the double trillium lattice antiferromagnet $\text{KBaCr}_2(\text{PO}_4)_3$ (13 pages) 224405
R. Kolay, Qing-Ping Ding, Y. Furukawa, A. A. Tsirlin, and R. Nath
- Evolution of itinerant electron magnetism in the $(\text{Sc}, \text{Nb})\text{Fe}_2$ system in spin-fluctuation theory (11 pages) 224406
S. El Bidaoui, L. V. B. Diop, and O. Isnard
- Discrete spacetime crystal: Intertwined spacetime symmetry breaking in a driven-dissipative spin system (7 pages) 224407
Xingdong Luo

(Continued)

Floquet dynamical chiral spin liquid at finite frequency (<i>12 pages</i>)	224408
Didier Poilblanc, Matthieu Mambrini, and Nathan Goldman	
3d oxide molecules to tailor large magnetic anisotropy energies on MgO films (<i>9 pages</i>)	224409
Sufyan Shehada, Manuel dos Santos Dias, Muayad Abusaa, and Samir Lounis	
Selective spin-wave nonreciprocity in an engineered chiral magnonic crystal without Dzyaloshinskii-Moriya interaction (<i>9 pages</i>)	224410
Diksha Prajapati and Chandrima Banerjee	
Dynamics of asymmetrically deformed skyrmion driven by internal forces and strain force in a flower-shaped magnetic nanostructure (<i>17 pages</i>)	224411
Zhen-Yu Tan, Ji-Pei Chen, Yu-Ke Shi, Yuan Chen, Ming-Hui Qin, Xing-Sen Gao, and Jun-Ming Liu	
Nonlinear photomagnetization in insulators (<i>8 pages</i>)	224412
Bernardo S. Mendoza, Norberto Arzate-Plata, Nicolas Tancogne-Dejean, and Benjamin M. Fregoso	
☞ Reversal behavior and stability of spin textures with different topologies in ultrathin films (<i>8 pages</i>)	224413
Yao Zhang, Guy Dubuis, Edward Trewick, and Simon Granville	
Thermodynamics and heat transport in the quantum spin liquid candidates NaYbS ₂ and NaYbSe ₂ (<i>9 pages</i>)	224414
N. Li, M. T. Xie, Q. Huang, Z. W. Zhuo, Z. Zhang, E. S. Choi, Y. Y. Wang, H. Liang, Y. Sun, D. D. Wu, Q. J. Li, H. D. Zhou, G. Chen, X. Zhao, Q. M. Zhang, and X. F. Sun	
Magnetic ground state and excitations in the mixed 3d-4d quasi-one-dimensional spin-chain oxide Sr ₃ NiRhO ₆ (<i>11 pages</i>)	224415
A. Jain, D. T. Adroja, S. Rayaprol, A. D. Hillier, W. Kockelmann, S. M. Yusuf, and E. V. Sampathkumaran	
Phase diagram of the antiferromagnetic J_1 - J_2 spin-1 pyrochlore Heisenberg model (<i>12 pages</i>)	224416
Imre Hagymási, Nils Niggemann, and Johannes Reuther	
High-field ultrasound study of elastic constants and possible magnetic symmetry transformations in UO ₂ (<i>7 pages</i>)	224417
E. A. Tereshina-Chitrova, L. V. Pourovskii, S. Khmelevskiy, D. Gorbunov, and R. Caciuffo	
Stacking-dependent ferroicity of a reversed bilayer: Altermagnetism or ferroelectricity (<i>7 pages</i>)	224418
Wencong Sun, Haoshen Ye, Li Liang, Ning Ding, Shuai Dong, and Shan-Shan Wang	
Short-range order and strong interplay between local and itinerant magnetism in GeFe ₃ N (<i>11 pages</i>)	224419
Tinghai Zhang, Yantao Cao, Bo Zhang, Hanjie Guo, Liang Qiao, Fashen Li, and Zhiwei Li	
☞ Hybrid skyrmions in magnetic multilayer thin films are half-integer hopfions (<i>8 pages</i>)	224420
W. S. Parker, J. A. Reddinger, and B. J. McMorran	
Magnetic ground state of monolayer CeI ₂ : Occupation matrix control and DFT+U calculations (<i>11 pages</i>)	224421
Yue-Fei Hou, Shujing Li, Xinlong Yang, Wei Jiang, Qiuhaio Wang, Fawei Zheng, Zhen-Guo Fu, and Ping Zhang	
Using a feedback-based quantum algorithm to analyze the critical properties of the ANNNI model without classical optimization (<i>13 pages</i>)	224422
G. E. L. Peixe, L. A. M. Rattighieri, A. L. Malvezzi, and F. F. Fanchini	

(Continued)

Prediction of half-valley metallic and valley semiconducting features in monolayer $\text{Ti}_3\text{X}_3\text{Y}_2$ ($\text{X} = \text{S, Se}; \text{Y} = \text{S, Se, Te}$) (7 pages)	224423
Tianxia Guo, Xiaokang Xu, Donghao Guan, Xueke Yu, Yanbiao Wang, Xiaojing Yao, Jinlian Lu, Yongjun Liu, and Xiuyun Zhang	
Magnetic anisotropy in epitaxial CoV_2O_4 thin films under strain (7 pages)	224424
Lu Liu, Congmian Zhen, Jiaxuan Feng, Xiaobo Wang, Li Ma, Guoke Li, Dewei Zhao, and Denglu Hou	
Tunneling magnetoresistance in MgO tunnel junctions with Fe-based leads in empirically corrected density functional theory (10 pages)	224425
G. G. Baez Flores, M. van Schilfgaarde, and K. D. Belashchenko	
 Helical edge modes in a triangular Heisenberg antiferromagnet (11 pages)	224426
Bastián Pradenas, Grigor Adamyan, and Oleg Tchernyshyov	
Long-distance coupling of standing spin waves mediated by a charge current (8 pages)	224427
Qian Chen, Zhaocong Huang, Bin Fang, Rongxin Li, Yang Xiao, Hengguo Lai, Qingjie Guo, Weiming Lv, Lei Wang, Shuai Dong, Ya Zhai, Zhongming Zeng, and Ke Xia	
Modeling of microfocused Brillouin light scattering spectra (12 pages)	224428
Ondřej Wojewoda, Martin Hroň, and Michal Urbánek	
Structural and magnetic properties of SmCrTiO_5 (12 pages)	224429
Anna E. Susloparova, Juan Pablo Bolletta, Balázs Kobzi, Arnold A. Paecklar, Samuel Jouen, François Fauth, Virginie Nachbaur, Vivian Nassif, Emmanuelle Suard, David Sedmidubsky, Alexander I. Kurbakov, Antoine Maignan, and Christine Martin	
 Magnetic structure of polar magnet GaV_4Se_8 with Néel-type skyrmion lattice probed by ^{51}V NMR (16 pages) ...	224430
Hikaru Takeda, Misaki Ishikawa, Masashi Takigawa, Minoru Yamashita, Yuri Fujima, and Taka-hisa Arima	
Spin excitations in $\text{Nd}_{1-x}\text{Sr}_x\text{NiO}_2$ and $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$: The influence of Hubbard U (7 pages)	224431
F. Rosa, L. Martinelli, G. Krieger, L. Braicovich, N. B. Brookes, G. Merzoni, M. Moretti Sala, F. Yakhou-Harris, R. Arpaia, D. Preziosi, M. Salluzzo, M. Fidrysiak, and G. Ghiringhelli	
Validating mean field theory in a complex disordered high-entropy spinel oxide (12 pages)	224432
Neha Sharma, Nikita Sharma, Jyoti Sharma, S. D. Kaushik, Sanjoy Kr. Mahatha, Tirthankar Chakraborty, and Sourav Marik	
Semiclassical analysis of spin dynamics in the non-Hermitian Hubbard model (13 pages)	224433
Doru Sticlet, Cătălin Pașcu Moca, and Balázs Dóra	
Gate control of magnon spin transport in unconventional magnon transistors based on the van der Waals antiferromagnet CrPS_4 (7 pages)	224434
Dennis K. de Wal, Raúl Luna Mena, Muhammad Zohaib, and Bart J. van Wees	
Topological one-way Weyl fiber (6 pages)	224435
Hao Lin, Zitao Ji, Yu Wang, Yidong Zheng, Jianfeng Chen, and Zhi-Yuan Li	
GdAlSi : An antiferromagnetic topological Weyl semimetal with nonrelativistic spin splitting (13 pages)	224436
Jadupati Nag, Bishal Das, Sayantika Bhowal, Yukimi Nishioka, Barnabha Bandyopadhyay, Saugata Sarker, Shiv Kumar, Kenta Kuroda, Venkatraman Gopalan, Akio Kimura, K. G. Suresh, and Aftab Alam	

(Continued)

Highly tunable magnetocrystalline anisotropy energy in Fe ³⁺ -doped BaTiO ₃ (<i>11 pages</i>)	224437
Bradford A. Barker, Nabaraj Pokhrel, Md Kamal Hossain, Katherine Inzani, Sinéad M. Griffin, and Elizabeth A. Nowadnick	
Uniform magnetic excitation in antiferromagnetic MnN (<i>11 pages</i>)	224438
Fengrui Zhang, Jianing Wang, Yuchen Ye, Jinxia Yang, Jinxuan Shi, Jianbo Wang, and Qingfang Liu	
Superfluidity and superconductivity	
Observing periodic gap variations in cuprates (<i>8 pages</i>)	224501
Riju Banerjee, Emily L. Wang, and Eric W. Hudson	
Crossed Andreev reflection revealed by self-consistent Keldysh-Usadel formalism (<i>10 pages</i>)	224502
Johanne Bratland Tjernshaugen, Morten Amundsen, and Jacob Linder	
Evaluation of Doppler shifts in <i>d</i> -wave superconductor tunneling junctions (<i>9 pages</i>)	224503
Takashi Sakamori, Kenki Matsuoka, Mitsuhiro Teshigawara, Yasunori Mawatari, Keiji Yada, Yukio Tanaka, and Satoshi Kashiwaya	
Temperature evolution of the Fermi surface of the FeSe monolayer on SrTiO ₃ (<i>7 pages</i>)	224504
Khalil Zakeri, Ryan Roemer, and Ke Zou	
Walking behavior induced by $\mathcal{PT}$ -symmetry breaking in a non-Hermitian XY model with clock anisotropy (<i>10 pages</i>)	224505
Eduard Naichuk, Jeroen van den Brink, and Flavio S. Nogueira	
Lifetime of edge modes at rough surfaces of chiral superconductors (<i>10 pages</i>)	224506
Seiji Higashitani, Gota Sato, and Yasushi Nagato	
Prediction of enhanced superconductivity in cyclo-H ₁₂ Bi/Pb involving a resonant hydrogen structure (<i>9 pages</i>)	224507
Jingkun Yu, Xue Yong, Hanyu Liu, and Siyu Lu	
Negative <i>c</i> -axis longitudinal magnetoresistance in FeSe (<i>9 pages</i>)	224508
M. Lourdes Amigó, Jorge I. Facio, and Gladys Nieva	
Pair-breaking scattering interference as a mechanism for superconducting gap modulation (<i>6 pages</i>)	224509
Zhi-Qiang Gao, Yu-Ping Lin, and Dung-Hai Lee	
Entanglement measures of Majorana bound states (<i>17 pages</i>)	224510
Vimallesh Kumar Vimal and Jorge Cayao	
Imaging Josephson vortices on curved junctions (<i>5 pages</i>)	224511
Yuita Fujisawa, Anjana Krishnadas, Tomonori Nakamura, Chia-Hsiu Hsu, Barnaby Smith, Markel Pardo-Almanza, Hoshu Hiyane, Guoqing Chang, Yuki Nagai, Tadashi Machida, and Yoshinori Okada	
Josephson transistor and robust supercurrent enhancement with spin-split superconductors (<i>9 pages</i>)	224512
Chi Sun and Jacob Linder	
Interplay between evanescent scattering modes and finite dispersion in superconducting junctions (<i>26 pages</i>)	224513
D. Kruti and R.-P. Riwar	

(Continued)



High pressure induced superconductivity and chirality-neutral Fermi surface in SrSi_2 (7 pages)	224514
M.-Y. Yao, J. Noky, Q.-G. Mu, K. Manna, N. Kumar, V. N. Strocov, C. Shekhar, S. Medvedev, Y. Sun, and C. Felser	
Emergence of light-induced superconducting-like state from the charge density wave state in high- T_c cuprate superconductors (12 pages)	224515
Morihiro Nishida, Dongjoon Song, Alannah M. Hallas, Hiroshi Eisaki, and Ryo Shimano	
Physical properties of orthorhombic NbS: An investigation using first-principles calculations (10 pages)	224516
H. Y. Uzunok, H. Yarar, S. Bağcı, and H. M. Tütüncü	
Observation of double superconducting domes in multilayer tellurene under high pressure (8 pages)	224517
Can Tian, Yiwei Ye, Chenchen Liu, Yuchen Zhang, and Xiaoli Huang	
Pairing tendencies in the doped Kitaev-Heisenberg model (11 pages)	224518
Pontus Laurell, Bradraj Pandey, Gábor B. Halász, Satoshi Okamoto, Gonzalo Alvarez, and Elbio Dagotto	
Anisotropy of Yu-Shiba-Rusinov states in NbSe_2 (12 pages)	224519
Mateo Uldemolins, Freek Massee, Tristan Cren, Andrej Mesaros, and Pascal Simon	
Exceptional hardness and superconductivity of sp^3 -hybridized boron frameworks encapsulating actinium at ambient pressure (9 pages)	224520
Xuehui Jiang, Haoqi Chen, Haowen Jiang, Chen Wu, Jialin Wang, Chengyao Zhang, Defang Duan, Jing Dong, and Yanbin Ma	
Two-dimensional pancake vortices in the highly anisotropic iron-based superconductor $\text{CsCa}_2\text{Fe}_4\text{As}_4\text{F}_2$ (7 pages)	224521
D. Zhao, J. Li, Bai-Zhuo Li, Y. Wang, D. W. Song, B. L. Kang, L. X. Zheng, S. J. Li, L. P. Nie, Z. M. Wu, Y. B. Zhou, M. Shan, Guang-Han Cao, T. Wu, and X. H. Chen	
Exotic d -wave Cooper pair Bose metal in two dimensions (11 pages)	224522
Zhangkai Cao, Jiahao Su, Jianyu Li, Tao Ying, Wansheng Wang, Jin-Hua Sun, Ho-Kin Tang, and Hai-Qing Lin	
Fractal quasicondensation in one dimension (8 pages)	224523
Flavio Riche, Miguel Gonçalves, Bruno Amorim, Eduardo V. Castro, and Pedro Ribeiro	