

2013年度 原著論文リスト

1. "Emergence of nonequilibrium charge dynamics in a charge-cluster glass", T. Sato, *F. Kagawa, K. Kobayashi, K. Miyagawa, K. Kanoda, R. Kumai, Y. Murakami, and Y. Tokura, *Phys. Rev. B* 89, 121102(R)-1-5 (2014).
2. "Revealing orbital and magnetic phase transitions in Pr_{0.5}Ca_{0.5}MnO₃ epitaxial thin films by resonant soft x-ray scattering", *H. Wadati, J. Geck, E. Schierle, R. Sutarto, F. He, D. G. Hawthorn, M. Nakamura, M. Kawasaki, Y. Tokura, and G. A. Sawatzky, *New J. Phys.* 16, 033006 (2014).
3. "Thermally driven ratchet motion of a skyrmion microcrystal and topological magnon Hall effect", *M. Mochizuki, X. Z. Yu, Y. Tokura (8/9), N. Nagaosa(9/9), *Nature Mater.* 13, 241-246 (2014).
4. "Dirac electron states formed at the heterointerface between a topological insulator and a conventional semiconductor", *R. Yoshimi, A. Tsukazaki, K. Kikutake, J. G. Checkelsky, K. S. Takahashi, M. Kawasaki, and Y. Tokura, *Nature Mater.* 13, 253-257 (2014).
5. "Anomalous domain-wall conductance in pyrochlore-type Nd₂Ir₂O₇ on the verge of the metal-insulator transition", *K. Ueda, J. Fujioka, Y. Takahashi, T. Suzuki, Y. Taguchi, M. Kawasaki, and Y. Tokura, *Phys. Rev. B* 89, 075127-1-5 (2014).
6. "Theory of magnon-skyrmion scattering in chiral magnets", J. Iwasaki, A.J. Beekman, and N. Nagaosa, *Phys. Rev. B*, 89, 064412(2014).
7. "Stability of two-dimensional skyrmions in thin films of Mn_{1-x}FexSi investigated by the topological Hall effect", *T. Yokouchi, M. Kawasaki, Y. Tokura (8/8), *Phys. Rev. B* 89, 064416-1-6 (2014).
8. "One-way transparency of four-coloured spin-wave excitations in multiferroic materials", *I. Kézsmárki, D. Szaller, S. Bordács, V. Kocsis, Y. Tokunaga, Y. Taguchi, H. Murakawa, Y. Tokura, H. Engelkamp, T. Rööm, and U. Nagel, *Nature Commun.* 5, 3203-1-9 (2014).
9. "Gate-tunable gigantic lattice deformation in VO₂", *D. Okuyama, *M. Nakano, S. Takeshita, H. Ohsumi, S. Tardif, K. Shibuya, T. Hatano, H. Yumoto, T. Koyama, H. Ohashi, M. Takata, M. Kawasaki, T. Arima, Y. Tokura, and *Y. Iwasa, *Appl. Phys. Lett.* 104, 023507-1-5 (2014).
10. "Biskyrmion states and their current-driven motion in a layered manganite", *X. Z. Yu, Y. Tokura (7/7), *Nature Commun.* 5, 3198-1-7 (2014).
11. "Theoretical modeling and properties of class DIII topological superconductors", S. Nakosai, Y. Tanaka and N. Nagaosa, *PHYSICA E.*, 55, 37-41(2014).
12. "Polarization Switching Ability Dependent on Multidoma in Topology in a Uniaxial Organic Ferroelectric", *F. Kagawa, S. Horiuchi, N. Minami, S. Ishibashi, K. Kobayashi, R. Kumai, Y. Murakami, and Y. Tokura, *Nano Lett.* 14, 239-243 (2014).
13. "Insulator-to-Superconductor Transition upon Electron Doping in a BiS₂-Based Superconductor Sr_{1-x}LaxFBiS₂", *H. Sakai, D. Kotajima, K. Saito, H. Wadati, Y. Wakisaka, M. Mizumaki, K. Nitta, Y. Tokura, and S. Ishiwata, *J. Phys. Soc. Jpn.*

83, 014709-1-7 (2014).

14. "Detection of Berry's Phase in a Bulk Rashba Semiconductor", *H. Murakawa, M. S. Bahramy (2/9) N. Nagaosa (7/9), Y. Tokura (9/9), *Science* 342, 1490-1493 (2013).
15. "Multiple helimagnetic phases and topological Hall effect in epitaxial thin films of pristine and Co-doped SrFeO₃", *S. Chakraverty, T. Matsuda, H. Wadati, J. Okamoto, Y. Yamasaki, H. Nakao, Y. Murakami, S. Ishiwata, M. Kawasaki, Y. Taguchi, Y. Tokura, and H. Y. Hwang, *Phys. Rev. B* 88, 220405(R)-1-5 (2013).
16. "Topological properties and dynamics of magnetic skyrmions", *N. Nagaosa, and Y. Tokura, *Nature Nanotech.* 8, 899-911 (2013).
17. "Two-dimensional p-wave superconducting states with magnetic moments on a conventional s-wave superconductor", S. Nakosai, Y. Tanaka and N. Nagaosa, *Phys. Rev. B*, 88, 180503(2013).
18. "Electromagnetic and thermal responses in topological matter: Topological terms, quantum anomalies and D-branes", A. Furusaki, N. Nagaosa, K. Nomura, S. Ryu, and T. Takayanagi, *Comptes Rendus Physique*, 14, 871-883(2013).
19. "Landau Level Spectroscopy of Dirac Electrons in a Polar Semiconductor with Giant Rashba Spin Splitting", *S. Bordacs, Y. Tokura (5/5), *Phys. Rev. Lett.* 111, 166403-1-5 (2013).
20. "Gate Control of Electronic Phases in a Quarter-Filled Manganite", *T. Hatano, Y. Ogimoto, N. Ogawa, M. Nakano, S. Ono, Y. Tomioka, K. Miyano, *Y. Iwasa, and Y. Tokura, *Scientific Reports* 3, 2904-1-5 (2013).
21. "Infrared-sensitive electrochromic device based on VO₂", *M. Nakano, K. Shibuya, N. Ogawa, T. Hatano, M. Kawasaki, *Y. Iwasa, and Y. Tokura, *Appl. Phys. Lett.* 103, 153503-1-4 (2013).
22. "Towards control of the size and helicity of skyrmions in helimagnetic alloys by spin-orbit coupling", *K. Shibata, X. Z. Yu, *Y. Tokura (8/8), *Nature Nanotech.* 8, 723-728 (2013).
23. "BaFeO₃ cubic single crystalline thin film: A ferromagnetic insulator", *S. Chakraverty, T. Matsuda, N. Ogawa, H. Wadati, E. Ikenaga, M. Kawasaki, Y. Tokura, and H. Y. Hwang, *Appl. Phys. Lett.* 103, 142416-1-4 (2013).
24. "Current-induced skyrmion dynamics in constricted geometries", J. Iwasaki, M. Mochizuki and N. Nagaosa, *Nature. Nanotech.*, 8, 742-747(2013).
25. "Interference of topologically protected edge states in silicene nanoribbons", M. Ezawa and N. Nagaosa, *Phys. Rev. B* 88, 121401(2013).
26. "Topological Nernst effect in a three-dimensional skyrmion-lattice phase", *Y. Shiomi, N. Kanazawa, K. Shibata, Y. Onose, and Y. Tokura, *Phys. Rev. B* 88, 064409-1-5 (2013).
27. "Observation of the Magnetic Skyrmion Lattice in a MnSi Nanowire by Lorentz TEM", *X. Z. Yu, Y. Tokura (6/6), *Nano Lett.* 13, 3755-3759 (2013).
28. "Microwave magnetoelectric effect via skyrmion resonance modes in a helimagnetic

- multiferroic”, *Y. Okamura, M. Kawasaki, Y. Tokura (9/9), *Nature Commun.* 4, 2391-1-6 (2013).
29. “Magnetophotocurrent in BiTeI with Rashba spin-split bands”, *N. Ogawa, M. S. Bahramy, H. Murakawa, Y. Kaneko, and Y. Tokura, *Phys. Rev. B* 88, 035130-1-7 (2013).
30. “Terahertz Magnetoelectric Resonance Enhanced by Mutual Coupling of Electromagnons”, *Y. Takahashi, Y. Yamasaki, and Y. Tokura, *Phys. Rev. Lett.* 111, 037204-1-5 (2013).
31. “Crystal chirality and skyrmion helicity in MnSi and (Fe, Co)Si as determined by transmission electron microscopy”, *D. Morikawa, K. Shibata, N. Kanazawa, X. Z. Yu, and Y. Tokura, *Phys. Rev. B* 88, 024408-1-4 (2013).
32. “Spin-Orbital Superstructure in Strained Ferrimagnetic Perovskite Cobalt Oxide”, *J. Fujioka, Y. Yamasaki, H. Nakao, R. Kumai, Y. Murakami, M. Nakamura, M. Kawasaki, and Y. Tokura, *Phys. Rev. Lett.* 111, 027206-1-5 (2013).
33. “Charge-cluster glass in an organic conductor”, *F. Kagawa, Y. Tokura (5/8), *Nature Phys.* 9, 419-422 (2013).
34. "Renormalization group study of electromagnetic interaction in multi-Dirac-node systems", H. Isobe and N. Nagaosa, *Phys. Rev. B* 87, 205138(2013).
35. “Spontaneous B-site order and metallic ferrimagnetism in LaSrVMoO₆ grown by pulsed laser deposition”, *S. Chakraverty, X. Z. Yu, M. Kawasaki, Y. Tokura, and H. Y. Hwang, *Appl. Phys. Lett.* 102, 222406-1-4 (2013).