

A list of publications by Hideo Aoki

March 2018

[Refereed journals]

[2018]

1. Kota Katsumi, Naoto Tsuji, Yuki I. Hamada, Ryusuke Matsunaga, John Schneeloch, Ruidan D. Zhong, Genda D. Gu, Hideo Aoki, Yann Gallais, Ryo Shimano: Higgs mode in the d-wave superconductor $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ driven by an intense terahertz pulse, *Phys. Rev. Lett.* **120**, 117001 (2018) (editor's suggestion).
2. Motoharu Kitatani, Thomas Schäfer, Hideo Aoki and Karsten Held: Why T_c is so low in high- T_c cuprates: importance of the dynamical vertex structure, submitted (arXiv:1801.05991).

[2017]

3. Motoharu Kitatani, Naoto Tsuji and Hideo Aoki: Interplay of Pomeranchuk instability and superconductivity in the two-dimensional repulsive Hubbard model, *Phys. Rev. B* **95**, 075109 (2017).
4. Yuta Murotani, Naoto Tsuji and Hideo Aoki: Theory of light-induced resonances with collective Higgs and Leggett modes in multiband superconductors, *Phys. Rev. B* **95**, 104503 (2017).
5. Ryusuke Matsunaga, Naoto Tsuji, Kazumasa Makise, Hirotaka Terai, Hideo Aoki, and Ryo Shimano: Polarization-resolved terahertz third-harmonic generation in a superconductor NbN: dominance of Higgs mode beyond the BCS approximation, *Phys. Rev. B* **96**, 020505(R) (2017).
6. Sota Kitamura, Takashi Oka and Hideo Aoki: Probing and controlling spin chirality in Mott insulators by circularly polarized laser, *Phys. Rev. B* **96**, 014406 (2017).
7. Daisuke Ogura, Hideo Aoki and Kazuhiko Kuroki: Possible high- T_c superconductivity due to incipient narrow bands originating from hidden ladders in Ruddlesden-Popper compounds, *Phys. Rev. B* **96**, 184513 (2017).

8. Tatsuhiro Misumi and Hideo Aoki; A new class of flat-band models on tetragonal and hexagonal lattices: gapped vs crossing flat bands,
Phys. Rev. B **96**, 155137 (2017) (Editor's suggestion).
9. Yoshikazu Ito, Yoichi Tanabe, Katsuaki Sugawara, Mikito Koshino, Takashi Takahashi, Katsumi Tanigaki, Hideo Aoki, and Mingwei Chen: Three-dimensional porous graphene networks expand graphene-based electronic device applications,
Phys. Chem. Chem. Phys., DOI: 10.1039/c7cp07667c.

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10. Masahiko G. Yamada, Tomohiro Soejima, Naoto Tsuji, Daisuke Hirai, Mircea Dinca and Hideo Aoki: First-principles design of a half-filled flat band of the Kagome lattice in two-dimensional metal-organic frameworks,
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11. Mikito Koshino and Hideo Aoki: Dirac electrons on three-dimensional graphitic zeolites — a scalable mass gap,
Phys. Rev. B **93**, 041412(R) (2016).
12. Yuta Murakami, Philipp Werner, Naoto Tsuji and Hideo Aoki: Multiple amplitude modes in strongly-coupled phonon-mediated superconductors,
Phys. Rev. B **93**, 094509 (2016).
13. Takahiro Mikami, Sota Kitamura, Kenji Yasuda, Naoto Tsuji, Takashi Oka and Hideo Aoki: Brillouin-Wigner theory for high-frequency expansion in periodically driven systems — Application to Floquet topological insulators,
Phys. Rev. B **93**, 144307 (2016).
14. Y. Murakami, P. Werner, N. Tsuji and H. Aoki: Damping of the collective amplitude mode in superconductors with strong electron-phonon coupling,
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15. Naoto Tsuji, Yuta Murakami and Hideo Aoki: Nonlinear light-Higgs coupling in superconductors beyond BCS: Effects of the retarded phonon-mediated interaction,
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16. Keita Kobayashi, Masahiko Okumura, Susumu Yamada, Masahiko Machida, and Hideo Aoki: Superconductivity in repulsively interacting fermions on a diamond chain — flat-band induced pairing,
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17. Tohru Kawarabayashi, Hideo Aoki and Yasuhiro Hatsugai: Lattice realization of the generalized chiral symmetry in two dimensions,
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18. Yoichi Tanabe, Yoshikazu Ito, Katsuaki Sugawara, Daisuke Hojo, Mikito Koshino, Takeshi Fujita, Tsutomu Aida, Xiandong Xu, Khuong Kim Huynh, Hidekazu Shimotani, Tadafumi Adschiri, Takashi Takahashi, Katsumi Tanigaki, Hideo Aoki, and Mingwei Chen: Electric properties of Dirac fermions captured into 3D nanoporous graphene networks,
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19. Sota Kitamura and Hideo Aoki: η -pairing superfluid in periodically-driven fermionic Hubbard model with strong attraction,
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24. Motoharu Kitatani, Naoto Tsuji and Hideo Aoki: FLEX+DMFT approach to the d-wave superconducting phase diagram of the two-dimensional Hubbard model,
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29. Yuta Murakami, Philipp Werner, Naoto Tsuji and Hideo Aoki: Supersolid phase accompanied by a quantum critical point in the intermediate coupling regime of the Holstein model,

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30. Hideo Aoki and Yasuhiro Hatsugai: Polarization as a topological quantum number in graphene,

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36. Y. Hatsugai, T. Morimoto, T. Kawarabayashi, Y. Hamamoto and H. Aoki: Chiral symmetry and its manifestation in optical responses in graphene: interaction and multi-layers, an invited article in *New J. Phys.* **15**, 035023 (2013).
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