業績目録（青木秀夫）
A list of publications by Hideo Aoki

October 2024

[**Refereed journals**]

[**2024**]

1. V. Valmispild, E. Gorelov, M. Eckstein, A. Lichtenstein, H. Aoki, M. Katsnelson, M. Ivanov and O. Smirnova: Sub-cycle multidimensional spectroscopy of strongly correlated materials,

   Nature Photonics **18**, 432 (2024).

2. Hiroyuki Tajima, Hideo Aoki, Andrea Perali, Antonio Bianconi: Emergent Fano-Feshbach resonance in two-band superconductors with an incipient quasi-flat band: Enhanced critical temperature evading particle-hole fluctuations,

   Phys. Rev. B Letter **109**, L140504 (2024).

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3. Sharareh Sayyad, Motoharu Kitatani, Abolhassan Vaezi, and Hideo Aoki: Nematicity-enhanced superconductivity in systems with a non-Fermi liquid behavior,

   Journal of Physics: Condensed Matter **35**, 245605 (2023).

4. P. A. Maksym and H. Aoki: Exact continuum theory of anti-Klein tunneling in bilayer graphene,

   arXiv:2306.10235.

[**2022**]

5. Sota Kitamura and Hideo Aoki: Floquet topological $d + id$ superconductivity induced by chiral many-body interactions,

   Communications Physics **5**, 174 (2022).

6. Kazunari Ochi, Hiroyuki Tajima, Kei Iida, and Hideo Aoki: Resonant pair-exchange scattering and BCS-BEC crossover in a system composed of dispersive and heavy incipient bands: a Feshbach analogy,

   Phys. Rev. Research **4**, 013032 (2022).

7. Changming Yue, Hideo Aoki and Philipp Werner: Superconductivity enhanced by pair fluctuations between wide and narrow bands,

   Phys. Rev. B **106**, L180506 (2022).

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8. Tohru Kawarabayashi, Yuya Inoue, Ryo Itagaki, Yasuhiro Hatsugai and Hideo Aoki: Robust zero modes in disordered two-dimensional honeycomb lattice with Kekulé bond ordering,

   Annals of Physics **435**, 168440 (2021).

9. P. A. Maksym and H. Aoki: Complete spin and valley polarization by total external reflection from potential barriers in bilayer graphene and monolayer transition metal dichalcogenides,

   Phys. Rev. B **104**, 155401 (2021).

[**2020**]

10. Hwanmun Kim, Hossein Dehghani, Hideo Aoki, Ivar Martin, and Mohammad Hafezi: Optical imprinting of superlattices in 2D materials,

    Phys. Rev. Research **2**, 043004 (2020).

11. Hirofumi Sakakibara, Hidetomo Usui, Katsuhiro Suzuki, Takao Kotani, Hideo Aoki, and Kazuhiko Kuroki: Model construction and a possibility of cuprate-like pairing in a new d^9 nickelate superconductor (Nd,Sr)NiO_2,

    Phys. Rev. Lett. **125**, 077003 (2020) (Editors' suggestion).

12. Hideo Aoki: Theoretical possibilities for flat-band superconductivity,

    Journal of Superconductivity and Novel Magnetism **33**, 2341 (2020).

13. Sharareh Sayyad, Edwin W. Huang, Motoharu Kitatani, Mohammad-Sadegh Vaezi, Zohar Nussinov, Abolhassan Vaezi and Hideo Aoki: Pairing and non-Fermi liquid behavior in partially flat-band systems,

Phys. Rev. B **101**, 014501 (2020).

14. Kimihiro Yamazaki, Masayuki Ochi, Daisuke Ogura, Kazuhiko Kuroki, Hiroshi Eisaki, Shinichi Uchida, and Hideo Aoki: Superconducting mechanism for a new-type cuprate $Ba_2CuO_{3+\delta}$ based on a multiorbital Lieb lattice model,

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15. 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,

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16. Sharareh Sayyad, Naoto Tsuji, Abolhassan Vaezi, Massimo Capone, Martin Eckstein and Hideo Aoki: Momentum-dependent relaxation dynamics of the doped repulsive Hubbard model,

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17. Sharareh Sayyad, Naoto Tsuji, Massimo Capone and Hideo Aoki: SO(4) FLEX+DMFT formalism with SU(2)⊗SU(2)-symmetric impurity solver for superconductivity in the repulsive Hubbard model,

    arXiv:1903.05800.

18. P.A. Maksym and H. Aoki: Fast split operator method for computation of time-dependent quantum states of bilayer graphene in a magnetic field,

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19. Tohru Kawarabayashi, Hideo Aoki and Yasuhiro Hatsugai: Topologically protected doubling of tilted Dirac fermions in two dimensions,

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21. Kazutaka Nishiguchi, Shingo Teranishi, Koichi Kusakabe and Hideo Aoki: Superconductivity arising from layer-differentiation in multi-layer cuprates,

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22. 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,

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24. Yuta Murotani, Naoto Tsuji and Hideo Aoki: Theory of light-induced resonances with collective Higgs and Leggett modes in multiband superconductors,

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25. 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,

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27. 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,

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28. Tatsuhiro Misumi and Hideo Aoki: A new class of flat-band models on tetragonal and hexagonal lattices: gapped vs crossing flat bands,

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29. 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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31. Yuta Murakami, Philipp Werner, Naoto Tsuji and Hideo Aoki: Multiple amplitude modes in strongly-coupled phonon-mediated superconductors,

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32. 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,

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36. Tohru Kawarabayashi, Hideo Aoki and Yasuhiro Hatsugai: Lattice realization of the generalized chiral symmetry in two dimensions,

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42. Sota Kitamura, Naoto Tsuji and Hideo Aoki: An interaction-driven topological insulator in fermionic cold atoms on an optical lattice — A design with a density functional formalism,

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44. Naoto Tsuji and Hideo Aoki: Theory of Anderson pseudospin resonance with Higgs mode in a superconductor,

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45. Masataka Watanabe, Hisato Komatsu, Naoto Tsuji and Hideo Aoki: Electronic structure of helicoidal graphene — massless Dirac particles on a curved surface with a screw symmetry,

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