July 2016

Curriculum vitae

Name: **Hideo Aoki**

Born on 1 October, 1950 in Tokyo, Japan

Marital status: married with a daughter

Home address: 1-12-18 Ottominami, Tsuchiura, Ibaraki 300-0845, Japan

Details of education

March 1973: BSc from Department of Physics, Tokyo Institute of Technology

March 1975: MSc from Department of Physics, University of Tokyo

March 1978: PhD from Department of Physics, University of Tokyo

April 1978: Postdoctoral research fellow, Japan Society for Promotion of Science

Career to date

May 1978 - Oct 1984:
Research associate, Department of Physics, University of Tokyo

Oct 1980 - Sept 1982:
Visiting scholar, the Cavendish Laboratory, University of Cambridge, UK

Nov 1984 - Nov 1986:
Lecturer, Institute of Materials Science, University of Tsukuba

Dec 1986 - Apr 1998:
Associate professor, Department of Physics, University of Tokyo

April 1998 - Mar 2016:
Professor, Department of Physics, University of Tokyo

May 2011 - Mar 2016:
Visiting professor, KEK
(High Energy Accelerator Research Organization), Tsukuba, Japan

March 2016: Retired from University of Tokyo at the age of 65

(June 2016-: Emeritus professor, University of Tokyo)

April 2016:
Guest researcher at Department of Physics, University of Tokyo, and at Electronics and Photonics Research Institute, Advanced Industrial Science and Technology (AIST), Tsukuba, Japan

Publications (books)

1. H. Kamimura and H. Aoki: *Physics of Interacting Electrons in Disordered Systems* (International Series of Monographs on Physics 76), Oxford Univ. Press, Oxford, 1989.

2. H. Aoki, M. Tsukada, M. Schlüter and F. Lévy (editors): *New Horizons in Low-Dimensional Electron Systems*, Kluwer Academic Publishers, Dordrecht, 1992.

3. Hideo Aoki, Yasuhiko Syono and Russell J. Hemley (editors): *Physics Meets Mineralogy — Condensed-Matter Physics in Geosciences*, Cambridge Univ. Press, 2000.

4. Hideo Aoki and Mildred S. Dresselhaus (ed.): *Physics of Graphene* (Springer, 2014).

Publications (papers in refereed journals)

Among 229 publications in refereed journals, there are 34 *Physical Review Letters*, 108 *Physical Review B*, 20 *Journal of Physical Society of Japan*, along with *Nature*, *Science*, *Reviews of Modern Physics*, *Physical Review A* articles. Total number of citations is 10190 according to Google Scholar Citations as of July 2016, with the best cited paper (PRL 2008 on the iron-based superconductor) cited 1416 times. Some of recent ones include:

1. 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,

   Phys. Rev. Lett. **115**, 045304 (2015).

2. 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,

   Phys. Rev. Lett. **113**, 266404 (2014).

3. Ryusuke Matsunaga, Naoto Tsuji, Hiroyuki Fujita, Arata Sugioka, Kazumasa Makise, Yoshinori Uzawa, Hirotaka Terai, Zhen Wang, Hideo Aoki, and Ryo Shimano: Light-induced collective pseudospin precession resonating with Higgs mode in a superconductor,

   Science **345**, 1145 (2014).

4. Hideo Aoki, Naoto Tsuji, Martin Eckstein, Marcus Kollar, Takashi Oka and Philipp Werner: Nonequilibrium dynamical mean-field theory and its applications,

   Rev. Mod. Phys. **86**, 779 (2014).

5. R. Shimano, G. Yumoto, J. Y. Yoo, R. Matsunaga, S. Tanabe, H. Hibino, T. Morimoto and H. Aoki: Quantum Faraday and Kerr rotations in graphene,

   Nature Commun. **4**, 1841 (2013).

6. D. Maryenko, J. Falson, Y. Kozuka, A. Tsukazaki, M. Onoda, H. Aoki and M. Kawasaki: Temperature dependent magnetotransport around $\nu = 1/2$ in ZnO heterostructures,

   Phys. Rev. Lett. **108**, 186803 (2012).

7. Naoto Tsuji, Takashi Oka, Philipp Werner and Hideo Aoki: Changing the interaction of lattice fermions dynamically from repulsive to attractive in ac fields,

   Phys. Rev. Lett. **106**, 236401 (2011). (Editors' Suggestion; Viewpoint)

8. Hirofumi Sakakibara, Hidetomo Usui, Kazuhiko Kuroki, Ryotaro Arita and Hideo Aoki: Two orbital model explains why the single-layer Hg cuprate have higher superconducting transition temperature than the La cuprate,

   Phys. Rev. Lett. **105**, 057003 (2010).

Membership: Physical Society of Japan

Full address

Department of Physics, University of Tokyo, Hongo, Tokyo 113-0033, Japan
Email: aoki@phys.s.u-tokyo.ac.jp
http://www-cms.phys.s.u-tokyo.ac.jp/

Electronics and Photonics Research Institute,
Advanced Industrial Science and Technology (AIST),
Tsukuba, Ibaraki 305-8568, Japan