

Yasuhiro Tada

Current Address:

Department of Physics
Kyoto University
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CITIZENSHIP: Japan

EDUCATION:

MSc in Engineering

Osaka University, March, 2008.

BSc in Physics

Osaka University, March, 2006.

RESEARCH INTERESTS:

Superconductivity, unconventional superconductivity, topological superconductivity, mechanisms, strong coupling effects, paramagnetic effect in vortex state, Fulde-Ferrell-Larkin-Ovchinnikov state

Heavy Fermion Systems, noncentrosymmetric compounds(CeRhSi₃, CeIrSi₃, CePt₃Si), Ce-115 compounds, UCoGe, URhGe, UGe₂

Quantum Critical Phenomena, spin fluctuations, non-analytic corrections

EMPLOYMENT:

Teaching Assistant

Department of Physics, Kyoto University(2008 - present).

Department of Applied Physics, Osaka University(2006 - 2008).

AWARDS and SCHOLARSHIPS:

JSPS Research Fellowships for Young Scientists(2008 - present).

Japan Student Services Organization(2006 - 2008).

PUBLICATIONS:

Journal Articles

"Spin fluctuations and superconductivity in noncentrosymmetric heavy fermion systems CeRhSi₃ and CeIrSi₃", Y. Tada, N. Kawakami and S. Fujimoto, *Phys. Rev. B* 81 (2010) 104506

"Pairing state at an interface of Sr₂RuO₄: parity-mixing, restored time-reversal symmetry, and topological superconductivity", Y. Tada, N. Kawakami and S. Fujimoto, *New Journal of Physics* 11 (2009) 055070

"Colossal enhancement of upper critical fields in noncentrosymmetric heavy fermion superconductors near quantum criticality: CeRhSi₃ and CeIrSi₃ ", Y. Tada, N. Kawakami and S. Fujimoto, *Phys. Rev. Lett.* 101 (2008) 267006

"Microscopic Mechanism and Pairing Symmetry of Superconductivity in the Noncentrosym-

metric Heavy Fermion Systems CeRhSi₃ and CeIrSi₃”, Y. Tada, N. Kawakami and S. Fujimoto, *J. Phys. Soc. Jpn.* 77 (2008) 054707

Proceedings

”Study of In-plane Upper Critical Fields in Noncentrosymmetric Superconductors CeRhSi₃ and CeIrSi₃ near Quantum Criticality”, Y. Tada, N. Kawakami and S. Fujimoto, *physica status solidi (b)* 247 (2010) 621

”Microscopic Study of Upper Critical Field in Noncentrosymmetric Heavy Fermion Superconductors CeRhSi₃ and CeIrSi₃”, Y. Tada, N. Kawakami and S. Fujimoto, *Journal of Physics Conference Series* 150 (2009) 052254

”Spin-fluctuation-mediated pairing in the heavy fermion superconductors without inversion symmetry CeRhSi₃ and CeIrSi₃”, Y. Tada, N. Kawakami and S. Fujimoto, *Journal of Physics and Chemistry of Solids* vol.69, issue 12, 3341

INVITED TALKS and LECTURES:

”Superconductivity in the vicinity of Quantum Critical Points (in Japanese)” at ”Autumn School on heavy fermion systems”, Kyoto Japan, November 24 - 27, 2009.