

Curriculum Vitae

Hiroto Adachi

Personal Information:

Date of Birth: May 15, 1975
Nationality: Japanese
Present Position: Senior Postdoctoral Fellow @ Advanced Science Research Center,
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Education:

November 2003 Ph.D. Physics, Kyoto University, JAPAN
March 2000 M.Sc. Physics, Kyoto University, JAPAN
March 1998 B.Sc. Physics, Kyoto University, JAPAN

Employment:

Dec. 2003-Feb. 2007 Postdoctoral Research Assistant with Professor K. Machida,
Okayama University, JAPAN
Mar. 2007-Feb. 2009 Postdoctoral Research Assistant with Professor M. Sigrist,
ETH-Zurich, SWITZERLAND
Mar. 2009-Mar. 2010 Postdoctoral Research Assistant with Professor S. Maekawa,
Institute for Materials Research, Tohoku University, JAPAN
Apr. 2010- Mar. 2011 Postdoctoral Fellow
ASRC, Japan Atomic Energy Agency, JAPAN
Apr. 2011-present Senior Postdoctoral Fellow
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Funding:

- Apr. 2006- Mar. 2007 JSPS Grant-in-Aid for Young Scientists
“Theoretical study of exotic superconducting states found among strongly correlated electron systems”
- Mar. 2007-Feb. 2009 JSPS Postdoctoral Fellowships for Research Abroad
“Theoretical study of exotic superconducting states found among strongly correlated electron systems”
- Apr. 2010- JSPS Grant-in-Aid for Young Scientists
“Theoretical research on the mechanism of thermal spin current generation”

Recent research interests:

The concept of spin current, a flow of electron’s spin, attracts much attention because the use of it, instead of the charge current, is considered as a possible route to overcome the problem with Moore’s law; with the reduction in size in the solid-state logic devices, the heating and power consumption of the devices diverge. Recently, a generation of the spin current from thermal gradient termed “spin-Seebeck effect” was demonstrated, and it triggered the emergence of a new subfield of spintronics named “spin caloritronics”. Besides its impact on the technological applications, the spin-Seebeck effect offers a number of interesting topics on the interplay of heat and spin, and here is my recent research interest.