

## Jiun-Haw Chu

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### Education and Training

<u>College/University</u>	<u>Major</u>	<u>Degree &amp; Year</u>	<u>Advisor</u>
Stanford University	Applied Physics	Postdoc, 2014-2016	Ian Fisher
University of California, Berkeley	Physics	Postdoc, 2012-2014	R. Ramesh
Stanford University	Applied Physics	Ph.D., 2006-2012	Ian Fisher
National Chiao Tung University	E.E.	B.S., 2000-2004	C. P. Lee

### Professional Experience

2016-Present Assistant Professor, Department of Physics, University of Washington, Seattle WA  
2014-2016 Postdoctoral Associate, Department of Applied Physics, Stanford University  
2012-2014 Postdoctoral Fellow, Department of Physics, UC Berkeley and Lawrence Berkeley Lab

### Selected Awards

AFOSR Young Investigator Award 2017  
Selected to Thomson Reuters' list of "The World's Most Influential Scientific Minds 2014"  
Gold Medal, First Taiwan Mathematical Contest of Modeling, 2003  
Presidential awards (top 5% student), 2000-2003

### Synergistic Activities

- Journal Review for Physical Review B, Physical Review Letters, Physical Review X, Nature Communication, Science
- APS March meeting 2014, 2017 Session Chair

### Research Accomplishments

Dr. Chu has published more than 100 paper, including Nature (1), Science (6), Nature Physics (3), Nature Materials (1), with total citations more than 10,000. Full publications list can be found [here](#).

### Selected Publications

1. Hsueh-Hui Kuo\*, **Jiun-Haw Chu\***, Johanna C. Palmstrom, Steven A. Kivelson and Ian R. Fisher, "Ubiquitous signatures of nematic quantum criticality in optimally doped Fe-based superconductor" **Science**, 352, 958 (2016) \*equal contribution
2. Fina, X. Marti, D. Yi, J. Liu, **J.H. Chu**, C. Rayan-Serrao, S. Suresha, J. Železný, T. Jungwirth, J. Fontcuberta, and R. Ramesh, "Anisotropic magnetoresistance in antiferromagnetic semiconductor Sr<sub>2</sub>IrO<sub>4</sub> epitaxial heterostructure", **Nature Communications** 5, 4671 (2014)
3. X. Marti, I. Fina, C. Frontera, Jian Liu, P. Wadley, Q. He, R.J. Paull, J.D. Clarkson, J. Kudrnovský, I. Turek, D. Yi, **J.-H. Chu**, C.T. Nelson, L. You, E. Arenholz, S. Salahuddin, J. Fontcuberta, T. Jungwirth, and R. Ramesh, "Room-temperature antiferromagnetic memory resistor", **Nature Materials** 13, 367–374 (2014)
4. **Jiun-Haw Chu**, Hsueh-Hui Kuo, James G. Analytis and Ian R. Fisher, "Divergent Nematic Susceptibility of an Iron Arsenide Superconductor" **Science**, 337, 710 (2012)
5. Y. L. Chen, **J.-H. Chu**, J. G. Analytis, Z. K. Liu, K. Igarashi, H.-H. Kuo, X. L. Qi, S. K. Mo, R. G. Moore, D. H. Lu, M. Hashimoto, T. Sasagawa, S. C. Zhang, I. R. Fisher, Z. Hussain, and Z. X. Shen,, "Massive Dirac Fermion on the Surface of a Magnetically Doped Topological Insulator", **Science** 329, 659 (2010).

6. **Jiun-Haw Chu**, James G. Analytis, Kristiaan De Greve, Peter L. McMahon, Zahirul Islam, Yoshihisa Yamamoto, and Ian R. Fisher, “In-plane resistivity anisotropy in an underdoped iron pnictide superconductor” **Science** 329, 824 (2010).
7. Y. L. Chen, J. G. Analytis, **J.-H. Chu**, Z. K. Liu, S.-K. Mo, X. L. Qi, H. J. Zhang, D. H. Lu, X. Dai, Z. Fang, S. C. Zhang, I. R. Fisher, Z. Hussain, Z.-X. Shen, “Experimental Realization of a Three-Dimensional Topological Insulator  $\text{Bi}_2\text{Te}_3$ ”, **Science** 325, 178-181 (2009).
8. **J.-H. Chu**, J. G. Analytis, C. Kucharczyk and I. R. Fisher, “Determination of the phase diagram of the electron doped superconductor  $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$ ” **Phys. Rev. B**, 79, 014506 (2009).

### Invited Talks

1. ”Elastoresistance measurement as a probe of broken symmetries in solids” **Workshop on two dimensional chalcogenides**: exotic electronic orders, superconductivity and magnetism, Dresden, Germany, Sep 2015
2. ”Divergent nematic susceptibility of optimally doped Fe-based superconductors” The 11<sup>th</sup> international conference on Materials and magnetism of superconductivity (**M2S 2015**), Geneva, Switzerland, Aug 2015
3. ”Elastoresistance measurement as a probe of broken symmetries in solids” **NSF Workshop on Frontiers of Experimental Condensed Matter Physics**, Arlington, VA, May 2015
4. ”Elastoresistance measurement as a probe of broken symmetries in solids” Kavli Colloquium, **Cornell University**, Mar 2015
5. ”Elastoresistance measurement as a probe of broken symmetries in solids” Condensed matter seminar, **University of Michigan, Ann Arbor**, Feb 2015
6. ”Elastoresistance measurement as a probe of broken symmetries in solids” Condensed matter seminar, **University of California, Davis**, Feb 2015
7. ”Elastoresistance measurement as a probe of broken symmetries in solids” Physics Colloquia, Department of Physics, **University of Washington**, Jan 2015
8. “Electronic nematic phase in Iron Based Superconductors” CLASSE Seminar, **Cornell High Energy Synchrotron Source**, Dec 2014
9. “Divergent Nematic Susceptibility in Iron Based Superconductors”, Condensed Matter Seminar, Physics Department, **University of California, Los Angeles**, Nov 2013
10. “Broken Rotational Symmetry in Underdoped Iron Pnictides Superconductors”, Special Seminar, **Institute of Physics, Academia Sinica, Taiwan**, Jan 2013
11. “Broken Rotational Symmetry in Underdoped Iron Pnictides Superconductors”, Seminar, **National High Magnetic Field Laboratory**, Tallahassee, FL, Nov 2011
12. “Broken Rotational Symmetry in Underdoped Iron Pnictides Superconductors”, Seminar, **Massachusetts Institute of Technology**, Boston, MA, Oct 2011
13. “Evidence for an electron nematic phase transition in underdoped iron pnictides superconductors”, **APS/EMC Users Meeting**, Argonne, IL, May 2010
14. “Evidence for an electron nematic phase transition in underdoped iron pnictides superconductors”, Special ICMT Seminar, **University of Illinois at Urbana-Champaign**, Mar 2010
15. “Phase diagram and angle dependent magnetoresistance of electron doped iron pnictides”, Condensed Matter Seminar, **National Center for Theoretical Science, Taiwan**, Aug 2009