

## WEIDA WU

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### A. PROFESSIONAL PREPARATION:

University of Science and Technology of China	Physics	B.S. 1998
Northwestern University	Physics	M.S. 1999
Princeton University	Physics	Ph.D. 2004
University of Texas at Austin (Post-doctor)	Cond. Matt. Physics	2004-2006

### B. APPOINTMENTS:

- 2013 - present      Associate Professor, Rutgers University, Dept. of Physics & Astronomy  
2007 - 2013:      Assistant Professor, Rutgers University, Dept. of Physics & Astronomy  
2006 - 2007:      Research Assistant Professor, Rutgers University, Dept. of Phys.&Astro.  
2004 - 2006:      Post-Doctoral Fellow, University of Texas at Austin, Dept. of Physics  
2000 - 2002:      Graduate Teaching Assistant, Princeton University, Dept. of Physics  
1999 - 2004:      Graduate Research Assistant, Princeton University, Dept. of Physics  
1998 - 1999:      Graduate Teaching Assistant, Northwestern University, Dept. of Physics

### C. PUBLICATIONS: (selected from 30)

#### (i) Closely related

1. Yanan Geng, Hena Das, Aleksander L. Wysocki, Xueyun Wang, S-W. Cheong, M. Mostovoy, Craig J. Fennie, and Weida Wu, "Direct visualization of magnetoelectric domains", *Nature Mater.*, **13**, 163-167 (2014). doi:10.1038/nmat3813  
<http://www.nature.com/nmat/journal/vaop/ncurrent/full/nmat3813.html>
2. Pin-Jui Hsu, Tobias Mauerer, Matthias Vogt, J.J. Yang, Yoon Seok Oh, S-W. Cheong, Matthias Bode, and Weida Wu, "Hysteretic melting transition of a soliton lattice in a commensurate charge modulation", *Phys. Rev. Lett.*, **111**, 266401 (2013).  
<http://prl.aps.org/abstract/PRL/v111/i26/e266401>
3. Pin-Jui Hsu, Tobias Mauerer, Weida Wu, and Matthias Bode, "Observation of a spin-density wave node on antiferromagnetic Cr(110) islands", *Phys. Rev. B*, **87**, 115437 (2013). <http://link.aps.org/doi/10.1103/PhysRevB.87.115437>
4. Rama K. Vasudevan, Weida Wu, Jeffrey R. Guest, Arthur P. Baddorf, Anna N. Morozovska, Eugene A. Eliseev, Nina Balke, V. Nagarajan, Peter Maksymovych and Sergei V. Kalinin, "Domain Wall Conduction and Polarization-Mediated Transport in Ferroelectrics", (Feature Article), *Adv. Funct. Mater.*, **23**, 2592–2616 (2013).  
<http://onlinelibrary.wiley.com/doi/10.1002/adfm.201300085/full>
5. Yanan Geng, N. Lee, Y. J. Choi, S-W. Cheong, and Weida Wu, "Collective magnetism at multiferroic vortex domain walls", *Nano Lett.*, **12**, 6055 (2012).  
<http://pubs.acs.org/doi/full/10.1021/nl301432z>

#### (ii) Other Significant Publications:

6. Hena Das, Aleksander L. Wysocki, Yanan Geng, Weida Wu and Craig J. Fennie, "Bulk magnetoelectricity in the hexagonal manganites and ferrites", *Nature Comm.*, **5**, 2998 (2014). <http://www.nature.com/ncomms/2014/140106/ncomms3998/abs/ncomms3998.html>
7. Wenbin Wang, Jun Zhao, Wenbo Wang, Zheng Gai, Nina Balke, Miaofang Chi, Ho Nyung Lee, Wei Tian, Leyi Zhu, Xuemei Cheng, David J. Keavney, Jieyu Yi, Thomas Z. Ward,

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- Paul C. Snijders, Hans M. Christen, Weida Wu, Jian Shen and Xiaoshan Xu, "Room-temperature multiferroic hexagonal LuFeO<sub>3</sub> films" Phys. Rev. Lett., **110**, 237601 (2013).  
<http://link.aps.org/doi/10.1103/PhysRevLett.110.237601>
8. Weida Wu, Y. Horibe, N. Lee, S.-W. Cheong, and J. R. Guest, "Conduction of topologically-protected charged ferroelectric domain walls", Phys. Rev. Lett., **108**, 077203 (2012).  
<http://link.aps.org/doi/10.1103/PhysRevLett.108.077203>
9. T. Choi, Y. Horibe, H.T. Yi, Y.J. Choi, Weida Wu, and S.-W. Cheong, "Insulating interlocked ferroelectric and structural antiphase domain walls in multiferroic YMnO<sub>3</sub>", Nat. Mater., **9**, 253 (2010). <http://www.nature.com/nmat/journal/v9/n3/full/nmat2632.html>
10. Weida Wu, Casey Israel, N. Hur, S. Park, S.-W. Cheong and A.L. de Lozanne, "Magnetic imaging of a supercooling glass transition in a weakly disordered ferromagnetic manganite", Nat. Mater., **5**, 881 (2006).  
<http://www.nature.com/nmat/journal/v5/n11/full/nmat1743.html>

### **(d) Synergistic activities**

- (i) NSF Faculty Early Career Development Award (2009);
- (ii) Proposal reviewer and panelist for NSF-DMR-CMP program (2010, 2012);
- (iii) Invited talks, APS March meeting (2010), CNM user meeting plenary session (2011);
- (iv) Alexander von Humboldt Fellowship for Experienced Researcher (2011).
- (v) DOE Early Career Award (2012).

### **(e) Recent Collaborators (past 48 months)**

N. Balke (ORNL), M. Bode (UWuerzburg), X. Cheng (Bryn Mawr), S.-W. Cheong (Rutgers), Y.J. Choi (Yonsei U), H.M. Christen (ORNL), J. Freeland (ANL), C.J. Fennie (Cornell), Z. Gai (ORNL), J.R. Guest (ANL), Y. Horibe (Rutgers) H. Lee, S.V. Kalinin, D.J. Keavney (ORNL), V. Kiryukhin (Rutgers), P. Maksymovych, (ORNL); P. Ryan (ANL), J. Shen (Fudan), D.G. Schlom (Cornell), TZ Ward (ORNL), X Xu (Nebraska, Lincoln).

#### **Graduate Advisors and Postdoctoral Sponsors:**

**Ph.D. Advisor:** Paul M. Chaikin (NYU) **Postdoc Advisor:** Alex de Lozanne (U. Texas, Austin)

#### **Thesis Advisor and Postgraduate-Scholar Sponsor (last 5 years):**

##### **Advisees:**

**Postdoc:** Soonyong Park (Chung-Ang U., South Korea), Quantong Shen, Jixia Dai (Rutgers);

**Graduate Students:** Yanan Geng, Wenbo Wang and Jing Chen (Rutgers);

**Undergraduate Students(out of 5):** Volodymyr Takhistov, Edward Lochocki, Tomer Nawrocki, Patrick Chen and Kelvin Mei (Rutgers).

Total number of graduate students: 3 and postdoctoral scholars sponsored: 3.