

Workshop on Magnetoelectric Interaction Phenomena in Crystals  
 University of California, Santa Barbara  
 January 25 – January 28, 2009

Sunday, January 25, 2009	
5:30 pm to 7:30 pm	Reception and Registration, Corwin Pavilion, University Center, UCSB
Monday, January 26, 2009 – Engineering Sciences Building, Room 1001	
8:45 am to 9:00 am	Introduction and Announcements (Nicola Spaldin)
Chair: Naoto Nagaosa	
9:00 am to 9:30 am	Igor Dzyaloshinskii, UC Irvine - Intrinsic Paramagnetism of Ferroelectrics
9:30 am to 9:40 am	Discussion
9:40 am to 9:55 pm	Friedrich Hehl, University of Cologne – Relativistic nature of a magnetoelectric modulus of $\text{Cr}_2\text{O}_3$ crystals: a new 4-dimensional pseudoscalar and its measurement
9:55 am to 10:00 am	Discussion
10:00 am to 10:30 am	Daniel Litvin, Pennsylvania State University - Tensor Distinction of Domains in Ferroic Crystals
10:30 am to 10:40 am	Discussion
10:40 am to 11:10 am	Break
Chair: Manfred Fiebig	
11:10 am to 11:40 am	Craig Fennie, Cornell - Strong magnetoelectric coupling by design
11:40 am to 11:50	Discussion
11:50 am to 12:05 am	Stanislav Kamba, Academy of Sciences of the Czech Republic – Strain-induced phase transitions in magnetoelectric $\text{EuTiO}_3$ thin films and first observation of phonon frequency tuning with magnetic field
12:05 pm to 12:10 pm	Discussion
12:10 pm to 1:30 pm	Lunch
Chair: Roman Pisarev	
1:30 pm to 2:00 pm	Tsuyoshi Kimura, Osaka University – Magnetoelectric control of spin-chiral ferroelectric domains in a triangular lattice antiferromagnet
2:00 pm to 2:10 pm	Discussion
2:10 pm to 2:25 pm	Kris Delaney, UCSB - First-Principles Study of Large Magnetoelectric Coupling in Triangular Spin Lattices
2:25 pm to 2:30 pm	Discussion
2:30 pm to 3:00 pm	Claude Ederer, Trinity College – Toroidal moments in multiferroics and magneto-electrics
3:00 pm to 3:10 pm	Discussion
3:10 pm to 5:10	Poster Session, MRL 2053 and 2048

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Chair: Nicola Spaldin	
5:30	Banquet Dinner at Faculty Club Hans Schmid, Souvenirs of euphoria and frustration around the discovery of the first ferroelectric/ferromagnetic crystals
Tuesday, January 27, 2009 – Engineering Sciences Building, Room 1001	
Chair: Kathrin Doerr	
8:50 am to 9:20 am	Gopalan Srinivasan, Oakland University - Microwave and MM-wave Magnetoelectric Interactions in Ferrite-Ferroelectric Bilayers
9:20 am to 9:30 am	Discussion
9:30 am to 9:45 am	Shuxiang Dong, Peking University – Modeling of magnetoelectric interaction in magnetostrictive-piezoelectric composites
9:45 am to 9:50 am	Discussion
9:50 am to 10:20 am	Break
Chair: Hans Schmid	
10:20 am to 10:50 am	Katrin Dorr, Dresden University - Explore the strain coupling in multiferroics: epitaxial films on a piezoelectric substrate
10:50 am to 11:00 am	Discussion
11:00 am to 11:30 am	Wolfgang Kleemann, University of Duisburg - Magnetoelectricity without crystal symmetry - the multiglass (Sr,Mn)TiO <sub>3</sub>
11:30 am to 11:40 am	Discussion
11:40 am to 11:55 pm	Jean-Pierre Rivera, University of Geneva – Review of Magnetoelectric (ME) and Related Measurement Techniques on Single Phase (Multi-) Ferroics
11:55 am to 12:00 pm	Discussion
12:00 pm to 1:00 pm	Lunch
Chair: Wolfgang Kleeman	
1:00 pm to 1:30 pm	Alois Loidl, University of Augsburg - Excitations in Multiferroic TbMnO <sub>3</sub>
1:30 pm to 1:40 pm	Discussion
1:40 pm to 2:10 pm	R. Ramesh, UC Berkeley - Electrical Field Control of Ferromagnets Using Multiferroics
2:10 pm to 2:20 pm	Discussion
2:20 pm to 2:35 pm	Roman Pisarev, Russian Academy of Sciences – Particular features of electronic structure in multiferroics
2:35 pm to 2:40 pm	Discussion
3:00 pm	Optional Excursions: Santa Barbara Mission and Downtown Santa Barbara Dinner at El Paseo restaurant in Downtown Santa Barbara

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Wednesday, January 28, 2009 – Engineering Sciences Building, Room 1001	
Chair: Thom Palstra	
9:00 am to 9:30 am	Sang-Wook Cheong, Rutgers – Multiferroicity of BiFeO <sub>3</sub>
9:30 am to 9:40 am	Discussion
9:40 am to 9:55 am	Elena Chukalina, Russian Academy of Sciences – Optical Spectroscopy of Tb <sup>3+</sup> in the Multiferroic TbMn <sub>2</sub> O <sub>5</sub>
9:55 am to 10:00 am	Discussion
10:00 am to 10:15 am	Alexander Moskvina, Ural State University – Microscopic mechanisms of spin-dependent electric polarization in 3d oxides
10:15 am to 10:20 am	Discussion
10:20 am to 10:50 am	Break
Chair: Claude Ederer	
10:50 am to 11:20 am	Maxim Mostovoy, University of Groningen - Static and dynamic magnetoelectric effects in frustrated magnets
11:20 am to 11:30 am	Discussion
11:30 am to 11:45 am	Andrei Malasevich, Rutgers University – First-principles study of improper ferroelectricity in TbMnO <sub>3</sub>
11:45 am to 11:50 am	Discussion
11:50 am to 12:20 pm	Thom Palstra, University of Groningen - Magnetoelectric coupling in Frustrated Spin Systems
12:20 pm to 12:30 pm	Discussion
12:30 pm to 1:45 pm	Lunch
Chair: Maxim Mostovoy	
1:45 pm to 2:05 pm	D. L. Mills UC Irvine – Electric Field Effects in Simple Ferromagnets; Flexoelectric Interactions
2:05 pm to 2:15 pm	Discussion
2:15 pm to 2:35 pm	Junyi Zhai, Virginia Tech – Magnetoelectric Gyration
2:35 pm to 2:45 pm	Discussion
2:45 pm to 3:00 pm	Break
3:00 pm to 3:20 pm	Vivien Zapf, Los Alamos National Lab – Magnetically-induced electric polarization in an organic quantum magnet
3:20 pm to 3:30 pm	Discussion
3:30 pm to 3:50 pm	Zuo Guang Ye, Simon Fraser University - Structure and Properties of Multiferroics and Magnetoelectric Relaxors
3:50 pm to 4:00 pm	Discussion

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4:00 pm	Workshop Close
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