

# EMN West Meeting 2013

## Program Schedule

Operating Organization



Supporting Organization

UNIVERSITY of  
**HOUSTON**



# 2013 EMN WEST MEETING

January 7-10, 2013

Hilton Houston Post Oak, Houston, USA

Room A

## Topological Insulators

Conference Onsite Registration

Hilton Houston Post Oak

14:00 - 18:00 PM

January 6

2013 EMN WEST Jan. 7

7:20 – 8:20	Breakfast	
Monday January 7 8:20 - 8:30 AM	Opening	
Monday January 7	ROOM A: Session 1 (TI)	Chair: Flavio Nogueira
8:30 – 9:00 AM	A1: To be determined	<b>Shoucheng Zhang</b> Stanford University USA
9:00 – 9:30 AM	A2: Theory of Topological Kondo Insulators	<b>Victor Galitski</b> University of Maryland USA
9:30 – 10:00 AM	A3: Topological Kondo insulators: a tale of SmB <sub>6</sub>	<b>Maxim Dzero</b> Kent State University USA
10:00 – 10:30	SESSION BREAK	

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<b>Monday January 7</b>	<b>ROOM A: Session 2 (TI)</b>	<b>Chair: Victor Galitski</b>
10:30 – 11:00 AM	A4: Topological Insulators: A New Platform for Fundamental Science and Applications	<b>Arun Bansil</b> Northeastern University USA
11:00 – 11:30 AM	A5: Magnetization dynamics, fluctuation effects, and quantum criticality on the surface of a topological insulator	<b>Flavio Nogueira</b> Ruhr-Universität Bochum Germany
11:30 - 13:30 PM	<b>LUNCH BREAK</b>	
<b>Monday January 7</b>	<b>ROOM A: Session 3 (TI)</b>	<b>Chair: Kenta Kuroda</b>
13:30 – 14:00 PM	A6: Magnetotransport properties of topological insulator thin films	<b>Yongqing Li</b> Institute of Physics CAS China
14:00 – 14:30 PM	A7: Spin helical transport in normal and superconducting topological insulators	<b>Ewelina Hankiewicz</b> Universitaet Wuerzburg Germany
14:30 – 15:00PM	A8: Applications of Topological Insulators in Surface Catalysis	<b>Wenguang Zhu</b> University of Science and Technology of China, China
15:00 – 15:30PM	<b>SESSION BREAK</b>	
<b>Monday January 7</b>	<b>ROOM A: Session 4 (TI)</b>	<b>Chair: Ewelina Hankiewicz</b>
15:30 – 16:00 PM	A9: Electrodynamics of Topological Insulator Surface States	<b>N. Peter Armitage</b> The Johns Hopkins University USA
16:00 – 16:30PM	A10: Comprehensive study of topological phase transitions using ultrathin films	<b>Toru Hirahara</b> University of Tokyo Japan
16:30 – 17:00PM	A11: Molecular-beam epitaxy of topological insulator $\text{Bi}_2\text{Te}_3$ , $\text{Bi}_2\text{Se}_3$ and $\text{Sb}_2\text{Te}_3$	<b>Gregor Mussler</b> Forschungszentrum Juelich GmbH Germany
17:00 – 17:30PM	A12: Rich electronic, spin, and orbital textures arising from near-surface quantum confinement in topological insulators	<b>Philip D C King</b> Cornell University USA

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17:30 – 17:50PM	A13:A tunable spin helicity with bulk carrier control on the surface of ternary topological insulator TlBiSe <sub>2</sub>	<b>Kenta Kuroda</b> Hiroshima University Japan
<b>2013 EMN Jan.8</b>		
<b>7:30 – 8:30</b>	<b>Breakfast and Poster</b>	
<b>Tuesday January 8</b>	<b>ROOM A: Session 5 (TI)</b>	<b>Chair: Philip Hofmann</b>
8:30 – 9:00 AM	A14:Topological Insulator Nanostructures: Material design toward a new quantum device	<b>Seung Sae Hong</b> Stanford University USA
9:00 – 9:30 AM	A15:Electrical Properties and Environmental Doping Effects in Epitaxial Bi <sub>2</sub> Se <sub>3</sub> Films grown by Hybrid Physical-Chemical Vapor Deposition	<b>Joan Redwing</b> The Pennsylvania State University USA
9:30 – 10:00 AM	A16:Shining light on the suppression of topological insulator surface states	<b>Ken Burch</b> University of Toronto Canada
10:00 – 10:30 AM	<b>SESSION BREAK</b>	
<b>Tuesday January 8</b>	<b>ROOM A: Session 6 (TI)</b>	<b>Chair: Seung Sae Hong</b>
10:30 – 11:00 AM	A17:Layer-by-layer entangled spin-orbital texture of the topological surface state in Bi <sub>2</sub> Se <sub>3</sub>	<b>Andrea Damascelli</b> University of British Columbia Canada
11:00 – 11:30 AM	A18:Bi <sub>1-x</sub> Sb <sub>x</sub> (110): A non-closed packed surface of a topological insulator	<b>Philip Hofmann</b> Aarhus University Denmark
11:30 – 12:00 AM	A19:Charge and Spin Transport in Topological Insulator Nanostructures	<b>Jifa Tian</b> Purdue University USA
12:00 - 13:30 PM	<b>LUNCH BREAK</b>	

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<b>Tuesday January 8</b>	<b>ROOM A: Session 7 (TI)</b>	<b>Chair: Lan Wang</b>
13:30 – 14:00 PM	A20:What Limits Mobility and Carrier Concentration in Epitaxial Topological Insulator Films?	<b>Ferhat Katmis</b> Massachusetts Institute of Technology USA
14:00 – 14:30 PM	A21:Magnetic proximity-induced symmetry breaking in topological insulators	<b>Peng Wei</b> Massachusetts Institute of Technology USA
14:30 – 15:00 PM	A22:SQUIDs with topological insulator junctions	<b>Cor Molenaar</b> University of Twente Netherlands
15:00-15:30 PM	<b>SESSION BREAK</b>	
<b>Tuesday January 8</b>	<b>ROOM A: Session 8 (TI)</b>	<b>Chair: Ferhat Katmis</b>
15:30 – 16:00 PM	A23:Imaging robust Landau quantization and quasiparticle interference on a multi-component topologically protected Fermi surface	<b>Anjan Soumyanarayanan</b> Harvard University USA
16:00 – 16:30 PM	A24:Signatures of a Topological Surface State Gap in Magnetic Heterostructures	<b>Anthony Richardella</b> Penn State University USA
16:30 – 17:00 PM	A25:Symmetry protection in topological phases	<b>Yasuhiro Hatsugai</b> University of Tsukuba Japan
17:00 – 17:30 PM	A26: $\beta$ -Ag <sub>2</sub> Te:A topological insulator with strong anisotropy	<b>Lan Wang</b> Nanyang Technological University Singapore
17:30 – 18:00 PM	A27:Strong and Weak 2D Topological Superconductivity in Hidden Quasi-1D Systems.	<b>Hong Yao</b> Tsinghua University China
<b>19:30 PM</b>	<b>DINNER</b>	
<b>2013 EMN Jan.9</b>		

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7:30 – 8:30	<b>Breakfast and Poster</b>	
<b>Wednesday January 9</b>	<b>ROOM A: Session 9 (TI)</b>	<b>Chair: Akio Kimura</b>
8:30 – 9:00 AM	A28:Correlated Topological Insulators with Mixed Valence	<b>Xi Dai</b> Institute of Physics, CAS China
9:00 - 9:30 AM	A29:Electronic Transport in Bi <sub>2</sub> Se <sub>3</sub> in the Topological Insulator Regime	<b>Dohun Kim</b> University of Maryland at College Park USA
9:30 – 10:00 AM	A30: Coupled Spin-Orbital Texture in 3D Topological Insulators	<b>Dan Dessau</b> University of Colorado USA
10:00 – 10:30 AM	<b>SESSION BREAK</b>	
<b>Wednesday January 9</b>	<b>ROOM A: Session 10 (TI)</b>	<b>Chair: Dan Dessau</b>
10:30 – 11:00 AM	A31: One-dimensional weak antilocalization in single-crystal Bi <sub>2</sub> Te <sub>3</sub> nanowires	<b>Mingliang Tian</b> High Magnetic Field Laboratory CAS, China
11:00 – 11:30 AM	A32:Spin Polarizations of Topological Surface States in Ternary Chalcogenides Probed with High Momentum- and Energy- Resolutions	<b>Akio Kimura</b> Hiroshima University Japan
11:30 - 14:00 PM	<b>LUNCH BREAK</b>	
<b>Wednesday January 9</b>	<b>ROOM A: Session 11 (TI)</b>	<b>Chair: Sergey Savrasov</b>
14:00 – 14:30 PM	A33:Superconductivity in Topological Compounds induced via Pressure	<b>Changqing Jin</b> Institute of Physics, CAS China
14:30 – 15:00 PM	A34:Weak anti-localization and localization in topological insulators and multi-valley massive Dirac fermion systems	<b>Haizhou Lu</b> The University of Hong Kong Hong Kong
15:00 – 15:30 PM	<b>SESSION BREAK</b>	

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<b>Wednesday January 9</b>	<b>ROOM A: Session 12 (TI)</b>	<b>Chair: Changqing Jin</b>
15:30 – 16:00 PM	A35: Topological Insulators, Semi-Metals and Superconductors From First Principles Electronic Structure Calculations	<b>Sergey Savrasov</b> University of California USA
<b>Thursday January 10</b>	<b>Social Network Events</b>	

**2013 EMN WEST MEETING**

**January 7-10, 2013**

**Hilton Houston Post Oak, Houston, USA**

**Room B**

**Interaction Among Nanostructures  
Optoelectronic Materials and Devices  
Valleytronics**

**Conference Onsite Registration  
Hilton Houston Post Oak  
14:00 - 18:00 PM  
January 6**

**2013 EMN WEST Jan. 7**

<b>7:20 – 8:20</b>	<b>Breakfast</b>	
<b>Monday January 7 8:20 - 8:30 AM</b>	<b>Opening</b>	
<b>Monday January 7</b>	<b>Room B: Session 1 (IAN)</b>	<b>Chair: Sharka M. Proke</b>
8:30 – 8:55 AM	B1:Formation Mechanisms of Nano- and Micro-Cones by Laser Radiation on a Surface of Si, Ge, SiGe	<b>Pavels Onufrijevs</b> Riga Technical University Latvia
8:55 – 9:20 AM	B2:Plasmonic hybrids with regulated photoluminescence output	<b>Mircea Cotlet</b> Brookhaven National Laboratory USA
9:20 – 9:45 AM	B3:Electronic band structures of fullerene/GaAs heterointerfaces and their applications	<b>Jiro Nishinaga</b> Waseda University Japan



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9:45 – 10:10 AM	B4: Metal Nanostructures on Polyaniline Substrates for Sensitive Surface Enhanced Raman Spectroscopy	<b>Ping Xu</b> Los Alamos National Laboratory USA
10:10 – 10:30	<b>SESSION BREAK</b>	
<b>Monday January 7</b>	<b>Room B: Session 2 (IAN)</b>	<b>Chair: Mircea Cotlet</b>
10:30 – 10:55 AM	B5: Surfactant effects in carbon nanostructures	<b>Nicolas A. Cordero</b> University of Burgo Spain
10:55 – 11:20 AM	B6: Nanoscale morphology of polymer-fullerene photovoltaic blends and charge carrier generation	<b>Arvydas Ruseckas</b> St Andrews United Kingdom
11:20 – 11:45 AM	B7: Use of LED radiation for Probing Exciton Transfer in Green Photosynthetic Bacteria	<b>Joseph Tang</b> Clark University USA
11:45 – 12:10 AM	B8: Ag thin films deposited by plasma enhanced atomic layer deposition (PEALD): A metamaterial exhibiting plasmonic behavior due to nanostructure coupling	<b>Sharka M. Prokes</b> Naval Research Lab USA
12:10 - 14:00 PM	<b>LUNCH BREAK</b>	
<b>Monday January 7</b>	<b>Room B: Session 3 (IAN)</b>	<b>Chair: Zhaohui Zhong</b>
14:00 – 14:25 PM	B9: Nanostructured environments for probing excitons in natural photosynthetic systems	<b>Semion K. Saikin</b> Harvard University USA
14:25 – 14:50PM	B10: Exciton-vibrational coupling in ordered 2-dimensional aggregates of organic molecules	<b>Alexander Eisfeld</b> Max-Planck-Institute for the Physics of Complex Systems Germany
14:50 – 15:15PM	B11: Energy transfer interactions in hybrid photovoltaic architectures based on the semiconductor colloidal nanocrystals assembled on silicon substrates	<b>Anton V. Malko</b> University of Texas at Dallas USA
15:15 – 15:30 PM	<b>SESSION BREAK</b>	
<b>Monday January 7</b>	<b>Room B: Session 4 (OMD)</b>	<b>Chair: Anton V. Malko</b>

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15:30 – 15:55PM	B12:Strategies for controlled assembly at the nanoscale	<b>Federico Rosei</b> INRS-EMT, Univ. du Quebec Canada
15:55 – 16:20PM	B13:Physical Properties of Hybrid Polymer-Nanocrystal Multilayered Architectures for High-Performance Near-Infrared Optoelectronics	<b>Sylvain Cloutier</b> Ecole de Technologie Superieure Canada
16:20– 16:45PM	B14:Emulsion-Based Resonant Infrared Matrix-Assisted Pulsed Laser Evaporation: An Enabling Technology for Organic Optoelectronic Devices	<b>Adrienne D. Stiff-Roberts</b> Duke University USA
16:45-17:05PM	B15:Engineering the optoelectronic property of bilayer graphene by twisting	<b>Jiming Bao</b> University of Houston USA
17:05-17:25PM	B16:The Impact of a New Bond Order Potential Modeling Approach on Optoelectronic Materials and Devices	<b>Xiaowang Zhou</b> Sandia National Laboratories USA
17:25 – 17:50PM	B17:Photo-assisted growth of metal and semiconductor nanocrystals in vitreous matrices for optical applications	<b>Mohamed Bouazaoui</b> Lille 1 University France
17:50 – 18:15PM	B18:Hot carrier extraction in graphene optoelectronics by strong lateral photo-Dember effect	<b>Zhaohui Zhong</b> University of Michigan USA
<b>2013 EMN Jan.8</b>		
<b>7:30 – 8:30</b>	<b>Breakfast and Poster</b>	
<b>Tuesday January 8</b>	<b>Room B: Session 5 (Valleytronics)</b>	<b>Chair: Sven Rogge</b>
9:00 – 9:30 AM	B19:Spontaneous Hall States in Graphene Two-Dimensional Electron Systems	<b>Allan MacDonald</b> The University of Texas at Austin USA
9:30 – 10:00 AM	B20:Valley dependent physics in silicene	<b>Motohiko Ezawa</b> University of Tokyo Japan
10:00-10:30	<b>SESSION BREAK</b>	

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<b>Tuesday January 8</b>	<b>Room B: Session 6 (Valleytronics)</b>	<b>Chair: Allan MacDonald</b>
10:30 – 11:00 AM	B21:Decoherence of a hybrid qubit: Two-electron dephasing in a single silicon quantum dot	<b>Xuedong Hu</b> University at Buffalo USA
11:00 – 11:30 AM	B22:Control over the valley population a single dopant in a Si nano device	<b>Sven Rogge</b> University of New South Wales Australia
11:30 – 12:00 AM	B23:Coherent valley dynamics in carbon nanotubes	<b>Andras Palyi</b> Eotvos University Hungary
	<b>LUNCH BREAK</b>	
<b>Tuesday January 8</b>	<b>Room B: Session 7 (Valleytronics)</b>	<b>Chair: Niklas Rohling</b>
14:00 – 14:30 PM	B24:Valley physics from inversion symmetry breaking: from graphene to monolayer dichalcogenides	<b>Wang Yao</b> The University of Hong Kong Hong Kong
14:30 – 15:00 PM	B25: Valley pumping in graphene mechanical resonators	<b>Tony Low</b> IBM TJ Watson Research Center USA
15:00-15:30 PM	<b>SESSION BREAK</b>	
<b>Tuesday January 8</b>	<b>Room B: Session 8 (Valleytronics)</b>	<b>Chair: Wang Yao</b>
15:30 – 16:00 PM	B26:The VOI-Based Valleytronics: Applications in Quantum Computing / Quantum Coomunications / FETs	<b>G. Y. Wu</b> National Tsing-Hua University Taiwan
16:00 – 16:30 PM	B27:Valley-based quantum control in quantum dots	<b>Dimitrie Culcer</b> University of Science and Technology of China China
16:30 – 17:00 PM	B28:Engineering Valley Splitting in Silicon Heterostructures	<b>André Saraiva</b> Universidade Federal do Rio de Janeiro Brazil

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17:00 – 17:30 PM	B29:Universal quantum computing with spin and valley states	<b>Niklas Rohling</b> University of Konstanz Germany
17:30 – 17:50 PM	B30:Unconventional Quantum Hall Effect and Tunable Spin Hall Effect in monolayer MoS <sub>2</sub>	<b>Xiao Li</b> The University of Texas at Austin, USA
<b>19:30 PM</b>	<b>DINNER</b>	
<b>2013 EMN Jan.9</b>		
<b>7:30 – 9:00</b>	<b>Breakfast and Poster</b>	
<b>Wednesday January 9</b>	<b>Room B: Session 9 (Valleytronics)</b>	<b>Chair: Ji Feng</b>
9:00 - 9:30 AM	B31:Probing valley population and trions in MoS <sub>2</sub> by optical spectroscopy	<b>Tony Heinz</b> Columbia University USA
9:30 – 10:00 AM	B32:Optical Manipulation and Electrical Control of Valley Pseudospin in Atomically Thin Semiconductors	<b>Xiaodong Xu</b> University of Washington Seattle USA
10:00 – 10:30 AM	<b>SESSION BREAK</b>	
<b>Wednesday January 9</b>	<b>Room B: Session 10 (Valleytronics)</b>	<b>Chair: Tony Heinz</b>
10:30 – 11:00 AM	B33:Manipulating spin and valley degrees of freedom in bismuth with a rotating magnetic field	<b>Kamran Behnia</b> Ecole Supérieure de Physique et de Chimie Industrielles France
11:00 – 1:30 AM	B34:Transport in spin-valley coupled monolayer MoS <sub>2</sub>	<b>Di Xiao</b> Carnegie Mellon University USA
11:30 – 12:00 AM	B35:Dichromatic coloring of Fermionic honeycomb lattices	<b>Ji Feng</b> Peking University China
12:00 - 14:00 PM	<b>LUNCH BREAK</b>	
<b>Wednesday January 9</b>	<b>Room B: Session 11 (IAN)</b>	<b>Chair: Yuko Ichiyanagi</b>

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14:00 – 14:25 PM	B36:Stacked Type-II II-VI Quantum Dots: Fundamental Physics and Applications	<b>Igor L Kuskovsky</b> Queens College of CUNY USA
14:25 – 14:50PM	B37:Ultrafast exciton dynamics of perylene bisimide aggregates	<b>Stefan Lochbrunner</b> Universität Rostock Germany
14:50 – 15:10PM	B38:Current-Induced Dynamics in Antiferromagnetic Metal: Domain Wall Dynamics and Spin Wave Excitation	<b>Ran Cheng</b> University of Texas at Austin USA
15:10– 15:30PM	<b>SESSION BREAK</b>	
<b>Wednesday January 9</b>	<b>Room B: Session 12 Interdisciplinary Science</b>	<b>Chair: Stefan Lochbrunner</b>
15:30 – 15:55 PM	B39:Supercomplex Properties in Artificial Light-Harvesting Antennas	<b>Dorthe M. Eisele</b> Massachusetts Institute of Technology USA
15:55 – 16:20PM	B40: Electro-Optical Functionality of Metal-Nanoparticle Carbon Nanotube Assemblies	<b>Iliia Ivanov</b> Oak Ridge National Laboratory USA
16:20 – 16:45PM	B41:Dilute nitride quantum well designs for improved multijunction photovoltaics	<b>Alex Freundlich</b> University of Houston USA
16:45– 17:10PM	B42:Functional magnetic nanoparticles and biomedecal applications	<b>Yuko Ichiyanagi</b> Yokohama National University Japan
17:10-17:35PM	B43:New Advances in III-Nitride Optoelectronic Materials	<b>Alan Doolittle</b> Georgia Tech USA
17:35-18:00PM	B44:Colloidal quantum dot photodetector and its enhancement by plasmonics	<b>Lih Y. Lin</b> University of Washington USA
<b>Thursday January 10</b>	<b>Social Network Events</b>	

**2013 EMN WEST MEETING**

**January 7-10, 2013**

**Hilton Houston Post Oak, Houston, USA**

**Room C**

**Complex Oxide Heterostructures**

**Energy and Environmental Research**

**Iron-based Superconductors**

**Conference Onsite Registration  
Hilton Houston Post Oak  
14:00 - 18:00 PM  
January 6**

**2013 EMN WEST Jan. 7**

<b>7:20 – 8:20</b>	<b>Breakfast</b>	
<b>Monday January 7 8:20 - 8:30 AM</b>	<b>Opening</b>	
<b>Monday January 7</b>	<b>Room C: Session 1 (COH)</b>	<b>Chair: Divine Kumah</b>
8:30 – 8:55 AM	C1:Electronic Phase Diagram of Ir Oxide Superlattices with Strong Spin-orbit Interaction	<b>Jobu Matsuno</b> Advanced Science Institute, RIKEN Japan
8:55 – 9:20 AM	C2: The Evolution of (111) Interface of Cubic Perovskite in 2DEG	<b>Sangwoo Ryu</b> University of Wisconsin-Madison USA
9:20 – 9:45 AM	C3:Heteroepitaxial Engineering of Polar 214-Ruddlesden-Popper Phases	<b>James M Rondinelli</b> Drexel University USA

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9:45 – 10:10 AM	C4: Gradual localization of Ni 3d states in LaNiO <sub>3</sub> ultrathin films induced by dimensional crossover	<b>Enju Sakai</b> High Energy Accelerator Research Organization (KEK) Japan
10:10 – 10:30	<b>SESSION BREAK</b>	
<b>Monday January 7</b>	<b>Room C: Session 2 (COH)</b>	
10:30 – 10:55 AM	C5: Effect of octahedral distortions on physical properties of La <sub>0.67</sub> Sr <sub>0.33</sub> MnO <sub>3</sub> films	<b>Arturas Vailionis</b> Stanford University USA
10:55 – 11:20 AM	C6: Correlating atomic structure and emergent phenomena at complex oxide interfaces	<b>Divine Kumah</b> Yale University USA
11:20 – 11:45 AM	C7: Electric field induced magnetization switching in Manganite/Cuprate/Manganite tunnel junctions	<b>Zouhair Sefrioui</b> Facultad de Ciencias Físicas, UCM Spain
11:45 – 12:10 AM	C8: Emergent phenomena in two-dimensional electron gases at oxide interfaces	<b>Susanne Stemmer</b> University of California Santa Barbara USA
12:10 - 14:00 PM	Lunch break	
<b>Monday January 7</b>	<b>Room C: Session 3 (COH)</b>	
14:00 – 14:25 PM	C9: Crystal symmetry and properties at interfaces of epitaxial perovskites	<b>Gertjan Koster</b> University of Twente The Netherlands
14:25 – 14:50PM	C10: Beyond Conventional Magnetic Recording Technologies	<b>Dmitri Litvinov</b> University of Houston USA
14:50 – 15:10PM	C11: The role of oxygen vacancies and electronic reconstruction on the conductivity of the LAO/STO interfaces	<b>Ariando</b> National University of Singapore
15:10 – 15:30 PM	<b>SESSION BREAK</b>	
<b>Monday January 7</b>	<b>Room C: Session 4 (COH)</b>	
		<b>Chair: Gertjan Koster</b>

Program Schedule: Room C – 2013 EMN West Meeting, Jan. 7 – 10 Houston, USA

15:30 – 15:55PM	C12:Competing phenomena at n-type interface between polar insulating-oxides and SrTiO <sub>3</sub> band insulator	<b>Marco Salluzzo</b> CNR-SPIN Italy
15:55 – 16:20PM	C13:Two-dimensional electron gases in SrTiO <sub>3</sub> -based complex oxide heterostructures with electron mobilities exceeding 100,000 cm <sup>2</sup> V <sup>-1</sup> s <sup>-1</sup>	<b>Yunzhong Chen</b> Technical University of Denmark
<b>2013 EMN Jan.8</b>		
<b>7:30 – 8:30</b>	<b>Breakfast and Poster</b>	
<b>Tuesday January 8</b>	<b>Room C: Session 5 (COH)</b>	<b>Chair: Guangyong Xu</b>
8:30 – 8:55 AM	C14:Electron transport in confined oxide nanowires	<b>Guanglei Cheng</b> Pittsburgh University USA
8:55 – 9:20 AM	C15:Doping a lot with a little: Interfacial states control of bulk properties in a model perovskite heterostructure	<b>Pu Yu</b> Tsinghua University China
9:20 – 9:45 AM	C16:Tunable spin-density-wave order in nickelate heterostructures	<b>Alex Frano</b> Max-Planck-Institut für Festkörperforschung Germany
9:45 – 10:10 AM	C17: “Emergent” Ferromagnetism in the copper iridium oxide Sr <sub>3</sub> CuIrO <sub>6</sub>	<b>Weiguo Yin</b> Brookhaven National Laboratory USA
<b>10:10 – 10:30</b>	<b>SESSION BREAK</b>	
<b>Tuesday January 8</b>	<b>Room C: Session 6 (COH)</b>	<b>Chair: Guanglei Cheng</b>
10:30 – 10:55 AM	C18:Electronic states and transport in graphene nanostructures with point defects	<b>Hiroshi Mizuta</b> JAIST and University of Southampton Japan and UK
10:55 – 11:20 AM	C19:Hydrogen sensors made with electrophoretic deposition of catalytic metal nanoparticles	<b>Karel Zdansky</b> Institute of Photonics and Electronics Czech Republic



Program Schedule: Room C – 2013 EMN West Meeting, Jan. 7 – 10 Houston, USA

11:20 – 11:45 AM	C20:Thermal evolution of the full three-dimensional magnetic excitations in the multiferroic BiFeO <sub>3</sub>	<b>Guangyong Xu</b> Brookhaven National Laboratory USA
<b>LUNCH BREAK</b>		
<b>Tuesday January 8</b>	<b>Room C: Session 7 (EER)</b>	<b>Chair: Alex Freundlich</b>
14:00 – 14:25 PM	C21:Rational design of nanostructured conducting polymers for energy storage technologies	<b>Guihua Yu</b> The University of Texas at Austin USA
14:25 – 14:50PM	C22:Theoretical study on Nb-doped TiO <sub>2</sub> as transparent conducting materials	<b>Koichi Yamashita</b> The University of Tokyo Japan
14:50 – 15:10PM	C23:Modeling of defect and radiation tolerance of IMM multijunction photovoltaics	<b>Akhil Mehrotra</b> University of Houston USA
15:10-15:30 PM	<b>SESSION BREAK</b>	
<b>Tuesday January 8</b>	<b>Room C: Session 8 (EER)</b>	<b>Chair: Koichi Yamashita</b>
15:30 – 15:50 PM	C24:Is it possible to make Si nanowire based thermoelectric devices?	<b>Taehyoung Zyung</b> ETRI, Daejeon Korea
15:50 – 16:15PM	C25:Optical Design for High-efficiency Solar Cells	<b>Ikuo Suemune</b> Hokkaido University Japan
16:15 – 16:40PM	C26:Magnetism and Electronic Compressibility in LAO/STO Interfaces	<b>Raymond C. Ashoori</b> Massachusetts Institute of Technology, USA
16:40 – 17:05PM	C27:Engineering Interfaces in Complex Oxide Heterostructures for Enhanced Functionality	<b>Katherine S. Ziemer</b> Northeastern University USA
17:05 – 17:30PM	C28:Thin film growth and vortex pinning of 122-type iron-pnictide superconductors	<b>Hidenori Hiramatsu</b> Tokyo Institute of Technology Japan
17:30 – 17:55PM	C29:Thermoelectric properties of polymer nanocomposites	<b>Andres Cantarero</b> Universidad de Valencia Spain

Program Schedule: Room C – 2013 EMN West Meeting, Jan. 7 – 10 Houston, USA

17:55 – 18:20	C30: Coherent behaviour in nanoscale transport processes	<b>Xavier Alvarez</b> Universitat Autònoma de Barcelona Spain
<b>19:30 PM</b>	<b>DINNER</b>	
<b>2013 EMN Jan.9</b>		
<b>7:30 – 8:30</b>	<b>Breakfast and Poster</b>	
<b>Wednesday January 9</b>	<b>Room C: Session 9 (FeSc)</b>	<b>Chair: Can-Li Song</b>
8:30 – 8:55 AM	C31:A Scaling Approach to Determine the Hc2 Anisotropy of Oxypnictides	<b>Silvia Haindl</b> IFW Dresden Germany
8:55 – 9:20 AM	C32:Fractional power law in the optical conductivity of iron-based superconductors	<b>Christopher Homes</b> Brookhaven National Laboratory USA
9:20 – 9:45 AM	C33:Ferromagnetism and superconductivity in doped LiFeAs	<b>Bernd Büchner</b> IFW Dresden Germany
9:45 – 10:10 AM	C34:Pseudogap formation in Iron-pnictides observed by Angle-resolved photoemission spectroscopy	<b>Takahiro Shimojima</b> University of Tokyo Japan
<b>10:10 – 10:30</b>	<b>SESSION BREAK</b>	
<b>Wednesday January 9</b>	<b>Room C: Session 10 (FeSc)</b>	<b>Chair: Bernd Büchner</b>
10:30 – 10:55 AM	C35:Anisotropic superconducting gap in the iron pnictide superconductor	<b>Tepei Yoshida</b> University of Tokyo Japan
10:55 – 11:20 AM	C36:Superconductivity induced by orbital fluctuation in iron-based superconductors	<b>Seiichiro Onari</b> Nagoya University Japan
11:20 – 11:45 AM	C37:Scanning Tunneling Microscopy Studies of Iron-based Superconductors FeSe and Sr <sub>0.75</sub> K <sub>0.25</sub> Fe <sub>2</sub> As <sub>2</sub>	<b>Can-Li Song</b> Harvard University USA
11:45 – 12:10 AM	C38:Interplay between magnetism and superconductivity in iron chalcogenides	<b>Zhiqiang Mao</b> Tulane University USA
<b>12:10 - 14:00 PM</b>	<b>LUNCH BREAK</b>	

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<b>Wednesday January 9</b>	<b>Room C: Session 11 (FeSc)</b>	<b>Chair: Hans-Henning Klauss</b>
14:00 – 14:25 PM	C39:Polarization-dependent three-dimensional ARPES study on $\text{Li}_{1+x}\text{FeAs}$ ( $x = 0, 0.2$ )	<b>Tetsuya Hajiri</b> Institute for Molecular Science(IMS) Japan
14:25 – 14:50PM	C40:Selective Mottness as a key to iron superconductors	<b>Massimo Capone</b> CNR-IOM and SISSA Italy
14:50 – 15:10PM	C41:Filamentary bipolar EPIR switching in amorphous silicon	<b>Rabi Ebrahim</b> University of Houston USA
15:10 – 15:30PM	<b>SESSION BREAK</b>	
<b>Wednesday January 9</b>	<b>Room C: Session 12 (FeSc)</b>	<b>Chair: Tetsuya Hajiri</b>
15:30 – 15:55PM	C42:Fermi surface topology and order parameter of iron-based superconductors from ARPES	<b>Sergey Borisenko</b> IFW Dresden Germany
15:55 – 16:20PM	C43:What is really the origin of the pseudo-gap like behaviour in NMR of $\text{NaFeAs}$ ?	<b>Denis Arcon</b> Jozef Stefan Institute Slovenia
16:20 – 16:45PM	C44:Interplay of structural, magnetic and superconducting order parameters in Fe-based superconductors	<b>Hans-Henning Klauss</b> Technische Universität Dresden Germany
16:45-17:05PM	C45:Chemical and structures in the Fe-based Pn and Ch families superconductors	<b>Qingzhen Huang</b> NIST Center for Neutron Research,NIST USA
17:05-17:30PM	C46: Diamagnetism in hole-doped high $T_c$ superconductors	<b>Lu Li</b> University of Michigan USA
17:30-17:55PM	C47: A simple framework for ARPES, STM and optical spectroscopy in the M122 iron-pnictide superconductors	<b>Erik van Heumen</b> University of Amsterdam Netherlands
17:55 – 18:20PM	C48:Orbital order and fluctuations driven by vertex corrections in Fe-based superconductors	<b>Hiroshi Kontani</b> Nagoya University Japan
<b>Thursday January 10</b>	<b>Social Network Events</b>	

## 2013 EMN WEST MEETING

January 7-10, 2013

Hilton Houston Post Oak, Houston, USA

Conference Onsite Registration

Hilton Houston Post Oak

14:00 - 18:00 PM

January 6

### Posters

P1	Electronic behavior and interaction among octahedral clusters	<b>E. Carvajal</b> ESIME-Culhuacán, Instituto Politécnico Nacional México
P2	Influence of anisotropy and quantum confinement on the radial breathing mode of Ge nanowires: A first principles study	<b>A. Trejo</b> Instituto Politécnico Nacional, ESIME-Culhuacan México
P3	Ab-initio study of the surface modification effects on the electronic band structure of Porous 3C-SiC	<b>M. Calvino</b> Instituto Politécnico Nacional, ESIME-Culhuacan México
P4	Chemical band gap engineering of H-terminated SiC nanowires: surface dangling bonds and oxygen effects	<b>J.L. Cuevas</b> Instituto Politécnico Nacional, ESIME-Culhuacan México
P5	Improvement of CdS/ITO/Glass Structure Optical Properties by Laser Radiation for Application in Solar Cells	<b>Pavels Onufrijevs</b> Riga Technical University Latvia
P6	Real time RHEED analysis of InAs/GaAs(001) quantum dot structural properties at the onset of dot nucleation	<b>Manori Gunasekera</b> University of Houston USA
P7	Enhancement of Thermoelectric Properties in CaMnO <sub>3</sub> by the Addition of Y	<b>Kyeongsoon Park</b> Sejong University Korea
P8	Thermal conductivity of silicon nanowires: the limit of classical theories	<b>A. Cantarero</b> Universidad de Valencia

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