

TO-BE Spring Meeting 2016

Wednesday, 6th April 2016

09:00	REGISTRATION (PHYSICS CONCOURSE)
11:00	CORE GROUP MEETING (CLOSED MEETING)
12:30	LUNCH (PHYSICS CONCOURSE)
13:30	WELCOME ADDRESS - PHYSICS LECTURE THEATRE (PLT)
13:40	FABIO MILETTO GRANOZIO COST TALK (PLT)
14:00	PLENARY TALK (PLT) - LENA F. KOURKOUTIS: <i>Interface phenomena in complex transition metal oxides probed with subatomic electron beams</i>
14:40	COFFEE BREAK

SESSION 1A: PLT

SESSION 1B: L5

15:15	INVITED TALK <i>Enhanced ferroelectric Curie temperature in lead-free oxide nanowires</i> S. KAR-NARAYAN	INVITED TALK <i>Novel materials at perovskite domain walls</i> B. NOHEDA
15:45	<i>Strain Engineered Ferroelectric Oxides: A Possible Route to Improved or even Novel Applications</i> R. Wördenweber	<i>Effects of oxygen background pressure on the stoichiometry of a LaGaO₃ laser ablation plume investigated by time and spectrally resolved two-dimensional imaging</i> A. Sambri
16:00	<i>Multi-stability in bi-stable ferroelectric materials for adaptive memory</i> A. Ghosh	<i>Disentanglement of growth dynamic and thermodynamic effects in LaAlO₃/SrTiO₃ heterostructures</i> R. Dittmann
16:15	<i>Functional properties of polydomain ferroelectric oxides: theory and experimental results of epitaxial PbZr_xTi_{1-x}O₃ thin films</i> E. Houwman	<i>Nano-structuration of SrRuO₃ conductive layer in epitaxial complex oxide heterostructures</i> S. Bagdzevicius
16:30	<i>Structural investigation of La_{0.6}Sr_{0.4}Co_{1-y}Fe_{y-0.03}Ni_{0.03}O_{3-δ} as new cathodes for IT-SOFCs</i> L. Liotta	<i>Controlling electron confinement with Mg-concentration profiles at ZnO/ZnMgO interfaces</i> M. Coke
16:45	<i>Sn doped α-Ga₂O₃ for high power electronics</i> E. Chikoidze	<i>Surface traps of ZnO nanowires mapped by high resolution cathodoluminescence and passivated by ZnMgO surface layers</i> O. Kennedy
17:00 to 17:40	KALYAN SARMA (HORIZON 2020) INNOVATE UK NATIONAL CONTACT POINT FOR NANOTECHNOLOGIES & ADVANCED MATERIALS (PLT)	

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09:00	PLENARY TALK (PLT) - J.M TRISCONI: <i>Superconductivity at the LaAlO₃/SrTiO₃ Interface</i>	
	SESSION 2A: PLT	SESSION 2B: L5
9:40	INVITED TALK <i>Multifunctional metal oxides on the front edge of new societal challenges</i> R. MARTINS	9:40 <i>Growing LaAlO₃ on SrTiO₃ by PLD in a Low Energy Electron Microscope</i> J. Aarts
		9:55 <i>Deoxidation of silicon surface using PLD technique</i> M. Spreitzer
10:10	<i>Role of surface states on the photoresponse of BaTiO₃ thin films</i> I. Fina	10:10 <i>Proximity driven commensurate pinning in YBa₂Cu₃O₇ through all-oxide magnetic nanostructures</i> J. Santamaria
10:25	COFFEE BREAK	COFFEE BREAK
10:45	<i>A superconducting interferometer defined at a complex oxide interface by AFM-lithography</i> M. von Soosten	10:45 <i>First-principles re-investigation of bulk WO₃</i> E. Bousquet
11:00	<i>Visible light induced photochromism in Yttrium based oxy-hydrides</i> S. Cornelius	11:00 <i>Frustration-Induced Nanoscale Inhomogeneity in a Triangular Spin Lattice</i> A. Lappas
11:15	<i>Quantum Hall effect at a modulation-doped oxide interface</i> F. Trier	11:15 <i>The influence of barrier material in tunnelling properties: a comparison of ferroelectric PbTiO₃ and antiferroelectric PbZrO₃ barriers</i> G. Apachitei
11:25	WORKGROUP 1 MEETING (OPEN TO ALL) (PLT)	
12:30	LUNCH	
	SESSION 3A: PLT	SESSION 3B: L5
13:30	INVITED TALK <i>Metal Oxides thin films deposition by Pulsed Plasma Deposition</i> A. NERI (Organic Spintronics)	13:30 INVITED TALK <i>Manipulating Emergent Phases using Nickelate Heterostructures</i> J. W. FREELAND
13:55	INVITED TALK <i>Recent advances in large area Pulsed Laser Deposition; epitaxial growth of complex oxides on silicon</i> R. GROENEN (Twente Solid State Technology)	14:00 <i>Depth-resolved image of the LaAlO₃/SrTiO₃ and LaAlO₃/EuTiO₃/SrTiO₃ system from Resonant Soft X-ray Reflectivity</i> M. Zwiebler

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14:20	<i>PiezoMEMS development from idea to product - case examples from SINTEF</i> T. Frode (SINTEF Microsystems and Nanotechnology)	14:15	<i>Gate-tunable superconductivity at the amorphous LaAlO₃/SrTiO₃ complex oxide interface</i> G. Prawiroatmodjo
		14:30	<i>Hardening of the soft phonon in bulk SrTiO₃ interfaced with LaAlO₃ and SrRuO₃</i> P. Calvani
14:45	COFFEE BREAK	14:45	COFFEE BREAK
15:05	<i>Multi-functional doped TiO₂</i> G. BENVENUTI (ABCD Technology, 3D-Oxides)	15:05	<i>Superconductor-insulator transitions with an unusual phase diagram at LaTiO₃/SrTiO₃ and LaAlO₃/GdTiO₃/SrTiO₃ oxide interfaces</i> M. Stehno
		15:20	<i>Electric Field Control of Spin Lifetimes in Nb-SrTiO₃ by Spin-Orbit Fields</i> T. Banerjee
15:30 to 16:30	WORKGROUP 2 MEETING (OPEN TO ALL) AND POSTER SESSION 1 (PHYSICS CONCOURS)		
18:30	CONFERENCE DINNER AT WARWICK CASTLE		

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09:00	PLENARY TALK (PLT) - R. DE RENZI: <i>Transition Metal Oxide research in Parma</i>	
	SESSION 4A: PLT	SESSION 4B: L5
09:40	INVITED TALK <i>Controlled lateral anisotropy in correlated manganite heterostructures by interface-engineered oxygen octahedral coupling</i> G. RIJNDERS	INVITED TALK <i>Towards imaging and control of multiferroic domains in insulating antiferromagnets</i> P. RADAELLI
10:10	COFFEE BREAK	COFFEE BREAK
10:30	<i>Interface control of electronic transport across the magnetic phase transition in SrRuO₃/SrTiO₃ heterointerface</i> C. Autieri	<i>Spin-Orbital Order induced by Orbital Dilution</i> A. M. Oles
10:45	<i>Understanding ferromagnetism in LaCoO₃ epitaxial thin films</i> P. Jiménez-Cavero	<i>Weak Magnetism in Superconducting Thin Films under Electric Field Effect</i> G. De Luca
11:00	<i>Role of Ferromagnetic LaCoO₃ as tunnel barrier in Epitaxial Bilayers Deposited by a Chemical Solution Method</i> I. Lucas	<i>Frustrated magnetism in the lanthanide zirconate pyrochlores, Ln₂Zr₂O₇ (Ln = Pr-Gd)</i> M. Ciomaga Hatnean
11:15	<i>Spin gapless semiconductor oxides: the case of doped PbPdO₂ thin films</i> P. Graziosi	<i>Charge and orbital order in presence of zig-zag magnetic textures in 4d – 3d hybrid oxides</i> W. Brzezicki
11:30	WORKGROUP 3 MEETING (OPEN TO ALL) AND POSTER SESSION II (PHYSICS CONCOURS)	
12:30	LUNCH	LUNCH
	SESSION 5A: PLT	SESSION 5B: L5
13:30	INVITED TALK <i>Tunable Nanionics in Thin Films: High Performance Memristor Structures and Enhanced Ionic Conductivities</i> J. DRISCOLL	INVITED TALK <i>Electronic structure, correlations, and spin-orbit coupling in a 5d delafossite oxide</i> P. KING

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14:00	<i>Memristive properties of MgO based structures</i> C. Dias	<i>Assessing the electronic structure of rare-earth nickelates from first-principles calculations</i> J. Varignon
14:15	<i>Anisotropic magnetoresistance in vicinal $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ thin films</i> L. Mechin	<i>Thickness induced symmetry changes of ultrathin Rare Earth Nickelates films</i> M. Guennou
14:30	<i>Self-Assembled Heteroepitaxial Nanocomposite-Based Resistive Switching Device</i> S. Cho	<i>The effect of strain on LaVO_3 thin films</i> H. Meley
14:45	COFFEE BREAK	COFFEE BREAK
15:05	L. Mechin: <i>Short introduction TO-BE STSM program</i> (PLT)	
	TALKS FROM TO-BE SHORT TERM SCIENTIFIC MISSIONS (STSM) GRANTEES (PLT)	
15:20	U. KLEKOTKA: <i>Temperature influence on magnetic properties of magnetite nanoparticles</i>	
15:30	E. AZA: <i>Frustrated Two-dimensional Manganites: The Quest for Single Crystals</i>	
15:40	R. FITTIPALDI: <i>Exploring potential applications of eutectic oxides</i>	
15:50	M. SIMENAS <i>EPR Study of Structural Phase Transition in Manganese-Doped $[(\text{CH}_3)_2\text{NH}_2][\text{Zn}(\text{HCOO})_3]$ Metal–Organic Framework</i>	
16:00	A. LEVERATTO: <i>Quantum nano-devices based on 2DEG in $\text{ZnO}/\text{Zn}_{1-x}\text{Mg}_x\text{O}$</i>	
16:10	G. DELLEA: <i>Exploring the scientific opportunities of resonant inelastic soft x-ray scattering (soft-RIXS) with the new ERIXS instrument at the ID32 beamline of the ESRF</i>	
16:20	W. BRZEZICKI: <i>Spin-orbital ordering in hybrid transition metal oxides</i>	
16:30	CLOSING REMARKS (PLT)	