

**MC 2 Emergent ferroelectrics I**

Tuesday, 4 September, afternoon

Topic: Ferroelectric Nitrides

Chair(s): Martina Müller/Niklas Wolff

Room:

Hours	ID	Name	Type	Title
16h00-16h30	12973	Geoff Brennecke	Invited	Chemical Effects on Switching Pathways in Ferroelectric Wurtzites
16h30-17h00	14035	Elizabeth Dickey	Invited	Polarization and Switching in Novel Ferroelectrics: Atomic -scale Analysis via Scanning Transmission Electron Microscopy
17h00-17h15	13216	Niklas Wolff	Oral	Ex situ observation of ferroelectric domain structures in wurtzite-type AlScN thin films by TEM
17h15-17h30	13690	Niklas Kyoushi	Oral	Metal Work Function Modulation of Al <sub>1-x</sub> Sc <sub>x</sub> N based Memristive Devices towards Downscaling
17h30-18h00	13104	Martina Müller	Invited	How to detect defect signatures in ferroelectric capacitors—a spectroscopic approach
18h00-18h15	13174	José P. S. Cardoso	Oral	Optical characterization of AlScN films grown by metalorganic chemical vapor deposition
18h15-18h30	13755	Maike Gremmel	Oral	Oxygen and Boron Incorporations and their Effect on Ferroelectricity in Al <sub>0.72</sub> Sc <sub>0.28</sub> N

**MC 2 Emergent ferroelectrics II**

Wednesday, 4 September, morning

Topic: Emerging properties

Chair(s): Athanasios Dimoulas/Jacobo Santamaria

Room:

Hours	ID	Name	Type	Title
10h30-11h00	12820	Jacobo Santamaria	Invited	Ferroelectric twistrionics with BaTiO <sub>3</sub> membranes
11h00-11h15	13049	António Cesário	Oral	Local Probing of Structural Phase Transitions in Naturally Layered Perovskites: Li <sub>2</sub> SrNb <sub>2</sub> O <sub>7</sub> as a case study
11h15-11h30	12851	Bruna Silva	Oral	Strain-dependent magnetic and dielectric properties of Ca <sub>3</sub> Mn <sub>2</sub> O <sub>7</sub> thin films prepared by pulsed laser deposition

11h30-11h45	13467	Yue-Wen Fang	Oral Contrib	Ferroelectric bismuth oxides: from crystal structure prediction to device implementation
11h45-12h15	12908	Athanasios Dimoulas	Invited	Hafnia-based ferroelectric field effect memristor synapses epitaxially grown on silicon
12h15-12h30	12724	Suzanne Lancaster	Oral	Multilevel switching in ferroelectric hafnia capacitors and tunnel junctions
12h30-12h45	12917	Alexandre Baigol	Oral	From Picoseconds to Biological Timescales: Conductance Changes in Hafnia Synapses
12h45-13h00	13291	Judith Knabe		Spectroscopic insights into filamentary and ferroelectric switching in epitaxial Hf 0.5Zr0.5O2

## MC 2 Emergent ferroelectrics III

Wednesday, 4 September, afternoon

Topic: Ferroelectric fluorites

Chair(s): Florencio Sanchez/Ignasi Fina

Room:

Hours	ID	Name	Type	Title
16h00-16h30	13073	Ignasi Fina	Invited	Epitaxial ferroelectric hafnia as a suitable platform for fundamental and novel phenomena investigations
16h30-16h45	13831	Bertrand Vilquin	Oral	Deposition optimization, infrared spectroscopy and ab-initio simulations of ferroelectric HfZrO2 thin films
16h45-17h00	13723	Veniero Lenzi	Oral	Effect of oxygen vacancies on ferroelectric properties and phase stability of ZrO2 thin films
17h00-17h15	12878	Daniele Nazzari	Oral	Ferroelectric-enhanced Schottky-Barrier Field Effect Transistors for Logic-in-Memory applications
17h15-17h30	13392	Lucas Rhetat	Oral	A Ferroelectric-based Non-Volatile SRAM Optimized for Critical Embedded Systems
17h30-17h45	12467	Jayak. A Ravikumar	Oral	Ferroelectric ZrO2 thin films for high-performing near-infrared photodetection
17h45-18h00	12976	Pavan Nukala	Oral	Cryogenic cooling in ferroelectric hafnia proximity induced via Mott transition
18h00-18h15	13137	Alexandre Silva	Oral	Doping effect on the phase stability and ferroelectric properties in ZrO2
18h15-18h30	12956	Xiaoshan Xu	Oral	Phase diagram of doped hafnia epitaxial thin films



## MC 2 Emergent ferroelectrics IV

Thursday, 5 September, afternoon

Topic: Emerging applications

Chair(s): José Silva, Maria Helena Braga

Room:

Hours	ID	Name	Type	Title
16h00-16h30	13431	Maria Helena Braga	Invited	Electrical, thermal, and mechanical oscillators in a ferroelectric-electrolyte lead to energy harvesting, storage, and switching
16h30-16h45	12832	Grégoire Magagnin	Oral	High energy storage antiferroelectric fluorite nanosupercapacitors
16h45-17h00	13428	Manuela C. Baptista	Oral	Advancing anode-less solid-state batteries with a ferroelectric electrolyte
17h00-17h15	13762	Beatriz Moura Gomes	Oral	Revolutionizing Energy Technology: a solid-state hybrid transistor-battery architecture based on a Ferroelectric electrolyte.
17h15-17h30	12922	Ramaz Khomeriki	Oral	Photonic ferroelectric vortex lattice
17h30-17h45	13885	A.A. Bassou	Oral	Photo-Ferroelectric Oxides for photovoltaic applications: Insights, Challenges and Opportunities
17h45-18h00	13387	Angelina Gudima	Oral	In-gap excitons in BiFeO <sub>3</sub> studied by resonant Raman spectroscopy.
18h00-18h15	12840	Tulika Maitra	Oral	Proposed two-dimensional rare-earth halide based triferroic from first principles calculations
18h15-18h30	13000	Alfredo B Martinez	Oral	Spin-phonon coupling and electric field induced Raman scattering in rare-earth orthoferrites

### Poster Session

Thursday, 5 September

ID	Name	Title
12761	M. Das	Effect of Mn substitution on the crystal structure and magnetic properties of Sr doped bismuth ferrite
12815	Anurag Pritam	Non-Debye type conduction mechanism in Aurivillius layered Bi <sub>4</sub> .5La <sub>0.5</sub> Fe <sub>0.9</sub> Co <sub>0.1</sub> Ti <sub>2.9</sub> Nb <sub>0.1</sub> O <sub>15</sub> multiferroic ceramic prepared through single-step microwave sintering method



13060	A. C. Miranda	Ferroelectricity vs Negative Thermal Expansion: A Nanoscopic View of Phase Transitions in Ruddlesden-Popper $AYTiO_4$ ( $A = Na, Ag$ )
13757	João Oliveira	Structural and Dielectric Properties of $CoFe_2O_4/LiNbO_3$ Bilayer Thin Films Deposited by Laser Ablation over $SrTiO_3$ Substrates
13794	Mael Guennou	Photostriction in a model ferroelectric studied by Laue diffraction
13886	A.A. Bassou	Photo-Ferroelectric h- $LuMnO_3$ Thin-films