

Workshop Program

14 of September

9:00 – 9:10 Opening

9:10-9:50: Liliana Mitoseriu: **Scale-dependent properties in BaTiO₃ ceramics with structural instability**

9:50-10:30: Antonio Casares ([on-line](#)): **Multi-Modal-Correlative Microscopy** (sponsor presentation, Zeiss)

10:30-11:10: Maryline Guilloux-Viry ([on-line](#)): **Niobates Ferroelectric Thin Films: i/ Growth and Characterization of Perovskite and TTB Phases in the K-Na-Nb-O System; ii/ Potential of Application in High Frequency Miniature Tunable Devices**

11:10 – 11:30 coffee break

11:30-12:10: Michael Springborg: **Shapes (of) Matter**

12:10-12:50: Ibrahim Burc Misirlioglu ([on-line](#)): **Interface limited stability of ferroelectricity in thin film heterostructures: Electrostatic interactions, elasticity effects and phase coexistence**

12:50-13:30: Jorge Iniguez: **Optimizing steady-state negative capacitance**

13:30 – 14:30 lunch

14:30-15:10: Josep Fontcuberta: **Electron transport and plasmonic response of metallic oxides**

15:10-15:50: Valerie Demange: **Oxide nanosheets as seed layers for epitaxial growth of complex oxides**

15:50-16:30: Brian Rodriguez: **AFM tip-induced strain effects in BiFeO₃ films: from structural phase changes to polarization switching and nanofabrication**

16:30 – 16:45 coffee break

16:45-17:25: Marty Gregg ([on-line](#)): **Conducting Ferroelectric Domain Walls: Fundamentals of Transport and Device Opportunities**

17:25-18:05: Alexei Gruverman ([on-line](#); **CANCELLED**): **Unconventional Dynamics of Domain Walls in Uniaxial Ferroelectric Lead Germanate**

19:15 dinner

15 of September

9:40-10:20: Marin Alexe: **Incommensurate spin crystal phases in ferromagnetic and ferroelectrics**

9:40-10:20: Brahim Dkhil (**CANCELLED**): **Playing with domains in ferroelectric polymers and hidden states in relaxors for neuromorphic computing**

10:20-11:00: Gustau Catalán: **Switching dynamics and “giant” electrocooling effect of antiferroelectric PbZrO₃.**

11:00 – 11:20 coffee break

11:20-12:00: Vincent Garcia: **Controlling antiferromagnetic textures in BiFeO₃ multiferroic thin films**

12:00-12:40: Nathalie Jedrecy (on-line): **Electro- and magneto- resistance in perovskite-based multiferroic junctions**

12:40-13:20: Pavlo Zubko (on-line): **Domains and lattice curvature in ferroelectric superlattices and supercrystals**

13:20 – 14:30 lunch

14:30-15:10 Torsten Granzow: **Anomalous photovoltaic effect in low-leakage solution-deposited BiFeO₃ films: Influence of doping and substrate stress**

15:10-15:50: Igor Stolichnov: **Switching in HfO₂-based ferroelectrics: an insight from nanoscopic analysis**

15:50-16:30: Marie-Helen Chambrier (on-line): **Ferroelectric state in a α -Ln₂WO₆ polymorphes stabilized in thin film**

16:30 – 16:45 coffee break

16:45-17:25: Gregory S. Rohrer (on-line): **High Throughput Studies of Metal Oxide Water Splitting Catalysts for the Development of Structure-Property Relations**

17:25: 18:05: Eric L. Altman (on-line): **Coupling Elastic, Electrostatic and Magnetic Responses in Transition Metal Silicate Monolayers**

19:15 dinner

16 of September

9:00-9:40: Nick Barrett: **Interface chemistry, oxygen vacancies, charge injection and polarization stability in ferroelectric hafnia-based films for non-volatile memories**

9:40-10:20: Uwe Schroeder: **Stabilization of the Ferroelectric Phase in Doped Hafnium Oxide Films: Influence of Dopants and Oxygen Vacancies**

10:20-11:00: Athanasios Dimoulas (on-line): **Scaling of HZO ferroelectric in Ge MFS for low power FTJ**

11:00 – 11:20 coffee break

11:20-12:00: Bertrand Vilquin: **Nanostructuring effect on the wake-up effect of $\text{Hf}_{0.5}\text{Zr}_{0.5}\text{O}_2$ capacitor**

12:00-12:20: Cristian Mihail Teodorescu: **Charge accumulation, conduction band filling and ferroicity**

12:20-12:40: Georgia Boni: **Dynamic dielectric characterization of ferroelectric capacitors- Evidencing negative capacitance**

12:40-13:00: Leontin Padurariu: **Dynamic Finite Element Method for describing complex dielectric properties in ferroelectric-based composites**

13:00-13:20: Marius Husanu: **Ferroelectricity and rhombohedral distortion in the electronic band structure of strained PbZrTiO_3**

13:20 – 14:30 lunch



Seeing beyond