

International Workshop on Domain Walls Functionalities

Venice, 27-28 march, 2019

Wednesday, 27th March

08:45	09:00	Opening	Marty & Marin	Chair	<u>Marin Alexe</u>
09:00	09:40	Invited	Ekhard Salje	Cambridge	A first fully consistent avalanche analysis: the case of ferroelectric Barkhausen noise in BaTiO ₃
09:40	10:20	Invited	Charlotte Cochard	Belfast	Boracites: where are we now ?
10:20	10:40	Contributed	Blai Casals Montserrat	Cambridge	Electric field induced avalanches and glassiness of mobile ferroelastic twin domains in cryogenic SrTiO ₃
10:40	11:00	Coffee break		Chair	<u>Marty Gregg</u>
11:00	11:40	Invited	Jorge Iniguez	LIST	First-principles studies of domain walls in orthorhombic perovskites
11:40	12:00	Contributed	Finnlay Morrison	St. Andrews	Disorder in Ferroelectric Tetragonal Tungsten Bronzes
12:00	12:20	Contributed	Grant Howieson	St. Andrews	Incommensurations in Improper Ferroelectric Lanthanum Tantalate
12:20	13:00	Invited	Dennis Meier	Trodheim	Low-temperature scanning probe and photoemission electron microscopy at improper ferroelectric domain walls
13:15	13:30				
13:30	14:00	Lunch			Lunch at Trattoria Storica, Cannaregio 4858
14:00	14:20			Chair	<u>Beatriz Noheda</u>
14:20	15:00	Invited	Lukas Eng	Dresden	DWC news in LiNbO ₃ : recent progress @ TUD
15:00	15:40	Invited	Alexei Gruverman	Nebraska	Intrinsic and tunable conductance of domain walls in ferroelectrics
15:40	16:00	Coffee break		Chair	<u>Dennis Meier</u>
16:00	16:40	Invited	Marty Gregg	Queen's	Domain walls in memristors and thermal management devices
16:40	17:00	Contributed	Michele Conroy	Queen's	Imaging Ferroelectric Conducting Domain Wall Dynamics of Cu ₃ B ₇ O ₁₃ Cl the Atomic Scale
17:00	17:20	Invited	Stephen Shevlin	Nature	Inside Nature journals: An editor's view
07:30		Dinner			Restaurant Vecia Cavana, Rio Terà SS. Apostoli, 4624 - 30131 Venezia

Thursday, 28th March

				Chair	<u>Alexei Gruverman</u>
09:00	09:40	Invited	Pavlo Zubko	UCL	Domains in metal-ferroelectric heterostructures
09:40	10:20	Invited	Patrycja Paruch	Geneva	Nanoscale studies of unusual polarisation textures at ferroelectric domain walls
10:20	10:40	Contributed	Dorin Rusu	Warwick	Vortex-like polarization in ferroelectric ultrathin films
10:40	11:00	Coffee break			
				Chair	<u>Gustau Catalan</u>
11:00	11:40	Invited	Bearriz Noheda	Groeningen	Yet stranger metallic behaviour in epitaxial nickelates
11:40	12:00	Contributed	Neus Domingo	Barcelona	Mechanical softness of domain walls in ferroelectrics
12:00	12:20	Contributed	Hugo Aramberri	LIST	Second-principles studies of domain walls in ferroelastic and antiferroelectric materials
12:20	13:00	Invited	Bernd Gotsmann	IBM	How to measure the temperature of self-heating devices and why it is useful, or at least interesting
13:10	13:30				
13:30	14:00	Lunch			
14:00	14:20			Chair	<u>Jorge Iniguez</u>
14:20	15:00	Invited	Nazanin Bassiri-Gharb	GeorgiaTech	The origins of electromechanical response in relaxor-ferroelectric solid solutions: a physically and chemically constrained machine learning
15:00	15:40	Invited	Kalani Moore	U Limerik	Challenges and answers in HR-TEM of Ferroelectric domain walls
15:40	16:00	Coffee break			
				Chair	<u>Marin Alexe</u>
16:00	16:20	Contributed	Carmen Posada	Cambridge	Magnetoelasticity in ErMnO ₃ -based materials
16:20	17:00	Invited	Gustau Catalan	Barcelona	Boundaries in antiferroelectrics, metal-insulator materials and other strange beasts