

XXXVII DyProSo Symposium

XXXVII International Symposium on Dynamical Properties of Solids



Registration (16:00-17:00)

Opening Cerimony (17:00-18:30)

17:00	Welcome and Introduction by the conference chair Dr. Federico Montoncello and Prof. Vincenzo Guidi	
17:30	Breaking the attosecond limit - From spin metamaterials to novel THz applications	MÜNZENBERG, Markus

Welcome Buffet (18:30-20:00)

XXXVII DyProSo Symposium

Registration (08:00-08:30)

Morning Session 1 - Chair: Paolo Vavassori (CIC nanoGUNE, Donostia, Basque Country (Spain)) (08:30-10:40)

Keynote talk (08:30-09:00)

08:30	Exploring the third dimension in Magnonic Crystals	GUBBIOTTI, Gianluca
09:00	Direct detection of multiple backward volume modes in yttrium iron garnet at micron scale wavelengths	KETTERSON, John B.
09:20	Dimensionality effects and phase transition dynamics in spintronics materials as seen by X-ray electron spectroscopies	PANACCIONE, Giancarlo
09:40	Spin wave modes in a cylindrical nanowire in crossover dipolar-exchange regime	KLOS, Jaroslaw
10:00	Edge modes in the switching mechanism of finite chains of macrospins	KUŹMA, Dominika
10:20	Domain structure and magnetization reversal mechanism in Co/Pd nanopatterned multilayer	SOBIESZCZYK, Paweł

Coffee Break (10:40-11:10)

Morning Session 2 - Chair: Gianluca Gubbiotti (CNR-IOM - Istituto Officina dei Materiali, Perugia (Italy)) (11:10-12:30)

Invited Talk (11:10-11:30)

11:10	Magneto-plasmonic nanostructures and crystals	VAVASSORI, Paolo
11:30	Measuring interfacial Dzyaloshinskii-Moriya interaction: a review	KUEPFERLING, Michaela
11:50	Reciprocal relation between spin Peltier and spin Seebeck effects	SOLA, Alessandro

Invited Talk (12:10-12:30)

12:10	Time-resolved investigations and biotechnological applications of plasmonic nanostructures	MACCAFERRI, Nicolò
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Lunch (12:30-13:45)



University
of Ferrara

9 Sep 2019 Ferrara, Italy



XXXVII DyProSo Symposium

Afternoon Session 1 - Chair: Jiri Kulda (Institut Laue-Langevin, Grenoble (France)) (13:45-14:45)

Invited Talk (13:45-14:05)

13:45	Terahertz-Driven Phonon Upconversion in SrTiO ₃	BONETTI, Stefano
14:05	Intimate link between Charge Density Wave, Pseudogap and Superconducting Energy Scales in Cuprates	SACUTO, Alain
14:25	Spin-lattice coupling in the quantum spin ice candidate Tb ₂ Ti ₂ O ₇ revealed by THz spectroscopy	DE BRION, Sophie

Afternoon Session 2 - Chair: Jiri Kulda (Institut Laue-Langevin, Grenoble (France)) (14:45-16:05)

Invited Talk (14:45-15:05)

14:45	Resonant Inelastic X-ray Scattering Study of Excitations in Cuprate Superconductors	CHAIX, Laura
15:05	Spin dynamics and phonons, insights into potential molecular qubits	BENCI, Stefano
15:25	Investigation of phonons and magnons in [Ni ⁸⁰ Fe ²⁰ /Au/Co/Au] ¹⁰ multilayers	ZDUNEK, Miłosz
15:35	Ab-initio study of the electron-phonon interaction of a single Fe adatom on the MgO/Ag(100) surface	GARAI-MARIN, Haritz
15:45	Proton momentum distributions in strong hydrogen bonds in the solid state	KRZYSTYNIAK, Matthew

Coffee Break (16:05-16:35)

Poster Session - Chair: Giacomo Gadda (INFN), Italy (16:35-17:30)

XXXVII DyProSo Symposium

Morning Session 1 - Chair: Piotr Zieliński (Institute of Nuclear Physics Polish Academy of Sciences, Cracow (Poland)) (08:30-10:40)

Keynote talk (08:30-09:00)

08:30	The short-range order in Zr-Ti melts	SZABÓ, Sandro
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Invited Talk (09:00-09:20)

09:00	Inelastic Neutron Scattering study of Brønsted acidity and water confinement in zeolites	JIMENEZ-RUIZ, Monica
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09:20	Advanced Diffusion Strategies for Junction Formation in Germanium	DE SALVADOR, Davide
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09:40	The causality-composition law in the non-Debye relaxations models	GORSKA, Katarzyna
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10:00	On some enigmatic properties of relaxation functions	HORZELA, Andrzej
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Invited Talk (10:20-10:40)

10:20	The influence of non-stoichiometry on the order and dynamics of oxides studied by inelastic neutron scattering	PIOVANO, Andrea
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Coffee Break (10:40-11:10)

Morning Session 2 - Chair: Winfried Petry (Technische Universität Muenchen (Germany)) (11:10-12:00)

Keynote talk (11:10-11:40)

11:10	Near-field THz nanoscopy with novel accelerator-based photon sources	ENG, Lukas M.
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11:40	A novel beamline for advanced photoelectron spectroscopy with narrowband extreme ultraviolet high harmonics at variable high repetition rate	CUCINI, Riccardo
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Tour to Legnaro (INFN Laboratory) (12:00-13:15)

Lunch in Legnaro (13:15-14:30)

Legnaro INFN Laboratory visit: Legnaro INFN Laboratory visit (14:30-17:30)

XXXVII DyProSo Symposium

Morning Session 1 - Chair: Andrzej Horzela (Institute of Nuclear Physics, Polish Academy of Sciences, Cracow (Poland)) (08:30-10:40)

Keynote talk (08:30-09:00)

08:30	Structural phase transitions from first-principles calculations	ERREA, Ion
09:00	Vibrational properties of closo – borane anions in superionic conductors	ŁODZIANA, Zbigniew
09:20	Adsorption of oxygen species on the SnO ₂ (110) defective surface: a DFT investigation	KRIK, Soufiane
09:40	Non-Debye vs Debye Dielectric Relaxation: How does memory effect arise?	LATTANZI, Ambra
09:50	Efficient calculation of anisotropic Fermi surface problems through Helmholtz Fermi Surface Harmonics (HFSH)	LAFUENTE-BARTOLOME, Jon
10:00	Ensamble sampling for lattice dynamics	JOCHYM, Paweł

Invited Talk (10:20-10:40)

10:20	Polycrystalline time-of-flight inelastic neutron scattering beyond the density of states	LEITNER, Michael
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Coffee Break (10:40-11:10)

Morning Session 2 - Chair: Renato Torre (European Lab. for Non-Linear Spectroscopy (LENS) and University of Firenze, Firenze (Italy)) (11:10-12:30)

Invited Talk (11:10-11:30)

11:10	Rubidium at Extreme Conditions	SANTORO, Mario
11:30	Impact of high-pressure evolution of elementary distortions on the phase-transition of RFeO ₃	VILARINHO, Rui
11:50	Investigation of high pressure phase transition by means of infrared spectroscopy in the Cairo frustrated pentagonal magnet Bi ₂ Fe ₄ O ₉	VERSEILS, Marine
12:10	Advances on the modelling of blood flows and pressures in humans through a new multiscale mathematical model	GADDA, Giacomo

XXXVII DyProSo Symposium

Lunch (12:30-13:45)

Afternoon Session 1 - Chair: Alain Sacuto (Université Paris Diderot, Paris, (France)) (13:45-15:25)

13:45	Sub-THz Raman response and critical dynamics in BaTiO ₃	FONTANA, Marc
14:05	Narrow Optical Gap Ferroelectric Bi ₂ ZnTiO ₆ Thin Films Deposited by RF Sputtering	FIGUEIRAS, Fábio
14:25	Electron localizations in alloy exhibiting nanotwinning	ZELENÝ, Martin
14:45	Molecular dynamics simulations of ferroelectric perovskites (BaTiO ₃ , BiFeO ₃) based on the effective Hamiltonian approach	KLÍČ, Antonín
15:05	Tetragonal Ferroelectric Phase of GdMnO ₃ Epitaxial Thin Film Grown onto SrTiO ₃ (001)	MACHADO, Pedro
15:15	Unravelling the Magnetoelectric Coupling Mechanisms in TbMnO ₃ through Fe ³⁺ substitution	MAIA, André

Coffee Break (15:25-15:55)

Afternoon Session 2 - Chair: Iñigo Etxebarria (Universidad del País Vasco UPV/EHU, Bilbao (Spain)) (15:55-17:00)

15:55	Piezoelectric response of K _{0.5} Na _{0.5} NbO ₃ designed by sintering engineering	GOMES, Mariana
16:05	Archetypal Soft-Mode Driven Antipolar Phase Transition in Francisite Cu ₃ Bi(SeO ₃) ₂ O ₂ Cl	MILESI-BRAULT, Cosme
16:15	Lattice dynamics and Raman spectrum of BaZrO ₃ single crystals	TOULOUSE, Constance
16:35	2D transition metal carbides as flexible anode materials	LEGUT, Dominik

Visit to the city (17:00-19:00)

Social Dinner (19:30-22:30)

XXXVII DyProSo Symposium

Morning Session 1 - Chair: Cesare Malagù (University of Ferrara (Italy)) (08:30-09:50)

Keynote talk (08:30-09:00)

08:30	Metal oxide heterostructures and hybrid nano composite for chemical sensors t	COMINI, Elisabetta
09:00	Bi ₂ O ₃ and ZnO nanowires growth using Vapor–Liquid–Solid (VLS) process for chemical sensors applications	MOUMEN, Abderrahim
09:10	Low-dimensional composite material based on modified graphene and metal oxide for high-performance chemical sensors	GALSTYAN, Vardan
09:30	Colloidal quantum dots for low-power-consumption semiconductor gas sensors	LIU, Huan

Morning Session 2 - Chair: Vincenzo Guidi (University of Ferrara (Italy)) (09:50-10:30)

Invited Talk (09:50-10:10)

09:50	Multiscale modelling of complex dynamical processes in solids with MBN Explorer and MBN Studio	KOROL, A. V.
10:10	Channeling experiments at the Mainz Microtron MAMI	LAUTH, Werner

CoffeeBreak (10:30-11:00)

Invited Talk (11:00-11:20)

11:00	Advanced Channeling Technologies: Strong External Electromagnetic Fields to Guide Charged & Neutral Beams	DABAGOV, Sultan B.
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Morning Session 2 (11:20-12:40)

11:20	Incoherent scattering reduction in crystals	TIKHOMIROV, Victor
11:40	Potential of parametric x-rays for application in particle identification detectors	LOBKO, Alexander
12:00	Progress towards an experiment for electromagnetic dipole moments of unstable particles at the LHC	NERI, Nicola
12:20	Novel type of compact e.m. calorimeter based on oriented crystals for high-energy physics and astrophysics	BANDIERA, Laura

XXXVII DyProSo Symposium

Lunch (12:40-14:00)

Afternoon Session 1 - Renato Cucini (CNR-IOM - Istituto Officina dei Materiali, Trieste (Italy)) (14:00-15:20)

Invited Talk (14:00-14:20)

14:00	Using patchy particles to shed new light on the autocatalytic aggregation of soft matter	COREZZI , Silvia
14:20	Nucleation in Aqueous KCl Solutions Induced by Laser Pulses	TORRE, Renato
14:40	Dynamical properties of ice and water: a broadband dielectric spectroscopy study	ARTEMOV, Vasily

Invited Talk (15:00-15:20)

15:00	Hertz-to-terahertz dielectric response of nanoconfined water molecules	GORSHUNOV, B.
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Afternoon Session 2 - Renato Cucini (CNR-IOM - Istituto Officina dei Materiali, Trieste (Italy)) (15:20-15:50)

15:20	Tuning the fast dynamics of PNIPAM-based systems with bio-cosolvents	ROSI, Benedetta Petra
15:30	Molecular dynamics of a liquid crystal with highly ordered smectic E phase under different forms of confinement	JASIURKOWSKA-DELAPOORTE, Malgorzata

Coffee Break (15:50-16:20)

Closing and Award Ceremony (16:20-16:50)

