CMD30 FisMat 2023

Milan, September 4th-8th

Joint Conference of the Italian and European
Community of Condensed Matter Physics

Summary

Committees

Conference chairmen

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Giacomo Ghiringhelli (Politecnico di Milano)
José Maria de Teresa Nogueras (CSIC-Universidad de Zaragoza)

Scientific secretariat

Silvia Maria Pietralunga (IFN-CNR)

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Lucio Andreani - Università di Pavia (Italy)
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Andrea Bassi - Politecnico di Milano (Italy)
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Paolo Biscari - Politecnico di Milano (Italy)
Stefano Bonetti - Università "Cà Foscari" (Italy)
Federico Boscherini - Università di Bologna (Italy)
Luca Callegaro - INRIM (Italy)
Pietro Carretta - Università di Pavia (Italy)
Daniela Comelli - Politecnico di Milano (Italy)
Claudia Dallera - Politecnico di Milano (Italy)
Gabriella Maria De Luca - Federico II di Napoli (Italy)
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Daniele Marrè - Università di Genova (Italy)
Giulio Monaco - Università di Trento (Italy)

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Matteo Passoni - Politecnico di Milano (Italy)
Silvia Picozzi - SPIN-CNR (Italy)
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Stefano Ruffo - SISSA (Italy)
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Olivier Fruchart - SPINTEC Lab. Granoble (France)
Dennis Meier - NTNU (Norway)
Joaquim Agostinho Moreira - Porto University (Portugal)
Alfonso Muñoz - La Laguna University (Spain)
Giovanni Onida - Università degli studi di Milano (IT)
Laurence Ramos - Laboratoire Charles Coulomb (France)
Erich Runge - TU Ilmenau (Germany)
Amina Taleb - CNRS-Soleil (France)
Kees van der Beek - CNRS (France)

Organizing local committee

Politecnico di Milano: Stefania Mosca, Maurizio Contran, Alessia Candeo, Serena Benelli, Ermanno Pinotti, Ettore Carpene, Stefano Dal Conte, Federico Bottegoni, Alberto Crepaldi, Amedeo Contran.

Università degli Studi di Milano: Francesca Borghi, Mirko Siano.

Conference

	Monday Sept. 04
08:45	Registration
11:45	Opening ceremony
12:15	Marc Mezard
13:15	Free time
14:15	Sakura Pascarelli Stephen Blundell
15:15	Minicolloquia and General sessions
17:45	Happy hour and poster session
18:45	CMD general council

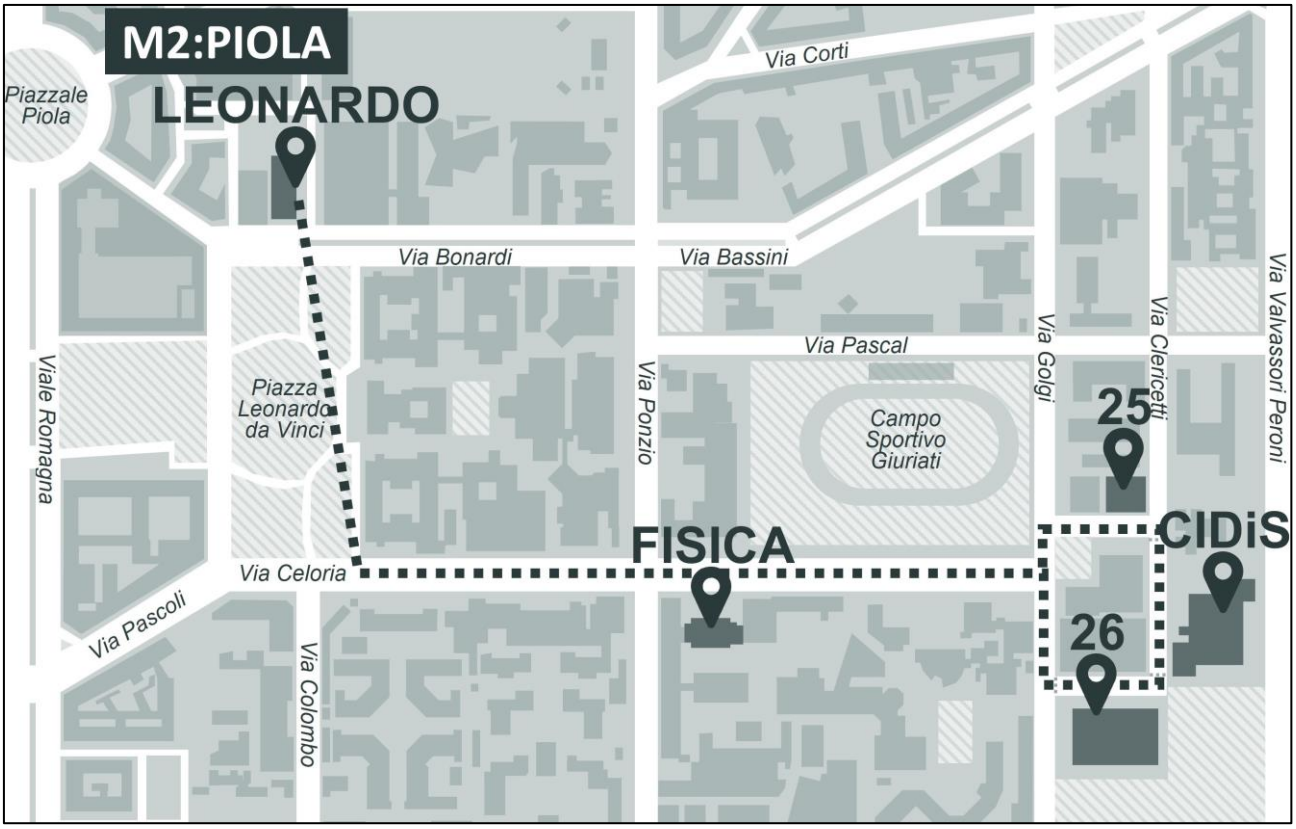
	Tuesday Sept. 05
08:45	Lara Benfatto
09:45	Coffee break
10:45	Minicolloquia and General sessions
13:15	Free time / Round table 1
14:15	Giovanna Fragneto Stefano Atzeni
15:15	Minicolloquia and General sessions
17:45	Giulio Cerullo Maria Antonietta Loi
18:45	Happy hour and poster session

	Wednesday Sept. 06
09:00	Europhysics prize
11:15	Coffee break
12:15	Andrey Varlamov
13:15	Free time / Round table 2
14:15	Denis Bartolo Eleni Diamanti
15:15	Minicolloquia and General sessions
17:45	Free time
20:00	Social dinner

timetable

	Thursday Sept. 07
08:45	Philip Kim
09:45	Coffee break
10:45	Minicolloquia and General sessions
13:15	Free time / Round table 3
14:15	Geetha Balakrishnan Hadas Shtrikman
15:15	Minicolloquia and General sessions
17:45	Paulo Freitas Ramon Aguado
18:45	Happy hour and poster session

	Friday Sept. 08
08:45	Pietro Gambardella
09:45	Coffee break
10:45	Minicolloquia and General sessions
13:15	Free time
14:15	Silvana Botti Anna Lukowiak
15:15	Minicolloquia and General sessions
17:45	Closing ceremony



Conference rooms' location

26 - PoliMi Building, via Golgi 20	Rooms 26.0.1 - 26.1.6
25 - PoliMi Building, via Golgi 40	Rooms 25.1.1 - 25.1.6
CIDiS - via Clericetti 15	Rooms 501 - 504
FISICA - Unimi, via Celoria 16	Rooms A - E, I, L, T, U
LEONARDO - via Ampère 1	

To reach the conference venues it is possible to use public transport (find lines and stops on giromilano.atm.it).

The closest underground stations are Piola and Lambrate, both on M2 green line.

Registration

The reception desk where all participants must go for the registration and for receiving the conference material will be in Building 26 where all the major activities of the conference will take place (poster sessions, coffee break, part of the semiplenary sessions, round tables and happy hours.

Social dinner location

The social dinner will take place in the cloisters of the **Museo Nazionale Scienza e Tecnologia Leonardo da Vinci**. For the participants, it will be possible to visit the largest permanent exhibition in the world dedicated to Leonardo da Vinci engineer and humanist.

Plenary and Semiplenary sessions

Plenary sessions

Monday, September 4 (Room Fisica A)

11.45-12.15 Opening ceremony

12.15-13.15 Marc Mezard - Università Bocconi

Tuesday, September 5 (Teatro Leonardo)

08.45-09.45 Lara Benfatto - Università "La Sapienza"

Wednesday, September 6

09.00-11.15 Europhysics prize (Teatro Leonardo)

12.15-13.15 Andrey Varlamov - SPIN-CNR (Building 26)

Thursday, September 7 (Teatro Leonardo)

08.45-09.45 Philip Kim - Harvard University

Friday, September 8

08.45-09.45 Pietro Gambardella - ETH Zurich (Teatro Leonardo)

17.45-18.45 Closing ceremony (Building 26)

Semiplenary sessions

● Sessions marked with this symbol will take place in room 26.1.6 (also broadcasted in room 26.1.5).
■ Sessions marked with this symbol will take place in room Fisica A.

Monday, September 4

14.15-15.15
● Sakura Pascarelli - European XFEL (DE)
■ Stephen Blundell - Oxford University (UK)

Tuesday, September 5

14.15-15.15
● Giovanna Fragneto - European Spallation Source (SW)
■ Stefano Atzeni - Focused Energy GmbH (DE)

17.45-18.45
● Giulio Cerullo - Politecnico di Milano (IT)
■ Maria Antonietta Loi - University of Groningen (NL)

Wednesday, September 6

14.15-15.15
● Denis Bartolo - ENS Lyon (FR)
■ Eleni Diamanti - CNRS, LIP6 Sorbonne Université (FR)

Thursday, September 7

14.15-15.15
● Geetha Balakrishnan - University of Warwick (UK)
■ Hadas Shtrikman - Weizmann Institute (IL)

17.45-18.45
● Paulo Freitas - INL-International Iberian Nanotechnology Laboratory (PT)
■ Ramon Aguado - Instituto de Ciencia de Materiales de Madrid, CSIC (ES)

Friday, September 8

14.15-15.15
● Silvana Botti - RC FEMS and Ruhr University Bochum (DE)
■ Anna Lukowiak - INTIBS-Polish Academi of Science (PL)

Oral contributions

MC_23: Strongly disordered systems I

Chairman: Andrey Varlamov Room 26.0.1

Michael Pepper	(Inv)	*Non-Magnetic Fractional Quantization of Conductance in Quasi 1D Nanostructures*
Victor Kagalovsky	(Inv)	*Luttinger liquid in the presence of relevant perturbations*
Yuval Gefen	(Inv)	*Measurements on an Anderson Chain*
Vladimir Dobrosavljevic	(Inv)	*Landau Theory for Disorder-Driven Metal-Insulator*
Vincent Humbert	(Inv)	*Redox-controlled phase transitions and tunneling electroresistance*

GS_08: Carbon based materials I

Chairman: Carmen Maia Gilardoni Room 26.0.2

Radha Boya	(Inv)	*Angstrom-scale channels made from 2D materials*
Changshui Huang		*The interface design of anodes based on graphdiyne*
Huibiao Liu		*Chemical Modification of Graphdiyne*
Stefano Veronesi		*Hydrogen absorption in a novel three-dimensional graphene structure: Towards hydrogen storage applications*
Antonio Turco		*Mechanochemical approach for the fabrication of Carbon based porous elastomeric (nano)composites: from environmental remediation to piezoresistive devices.*
Alice Apponi		*Transmission through Graphene of Electrons in the 30 - 900 eV Range*
Simone Melesi		*Vibrational properties of halogenated carbon atomic wires and their immobilization inside electrospun polymeric nanocomposites*
Joo Paulo Vita Damasceno		*Liquid-phase Exfoliation from the Colloidal Point of View and Greener Strategies to Disperse Carbon Materials*
Wenlong Yang		*Controllable Preparation of Crystalline Graphdiyne-based Materials*
Christopher Deeks		*Analysis of Carbon Materials Using Coincident XPS-Raman*

GS_05: Strongly correlated electron systems I

Chairman: Gabriella De Luca Room 26.0.3

Milan Radovic	(Inv)	*Creating and Tuning Electronic states and Phases of NdNiO3*

Izabela Biao		*Strain-Tuned Magnetic Frustration in La2NiO4*
Marco Moretti		*The origin of magnetism in a supposedly nonmagnetic osmium oxide*
Leonardo Martinelli		*Collective nature of orbital excitations in layered cuprates in the absence of apical oxygens*
Francesco Gabriele		*Generalized plasma waves in layered systems and their spectroscopic signatures*
Daniel Kazenwadel		*Determination of the nearest-neighbor interaction in VO2 via fractal dimension analysis*

GS_10: Magnetic materials and spintronic I

Chairman: Stephen Blundell Room 26.0.4

Christian Rinaldi	(Inv)	*Ferroelectric switching of spin-to-charge conversion towards ultralow power spintronics*
Federico Bottegoni		*Electrically-Driven Spin Current Modulation in Silicon*
Gopal Datt		*Strongly interface coupled biphasic NiZnFe2O4/LaFeO3 nanowires wires for beyond-room-temperature spin insulatronics*
Himanshu Himanshu		*Study of magnetic epitaxial thin films using neutron diffraction*
Manaswini Sahoo		*Helical to conical order in M1/3 NbS2 (M=Cr, Mn), detected by Cr, Mn, and Nb NMR*
Piotr Majek		*Spin-dependent transport through Kondo-Majorana spintronics devices*
Giovanni Gandini		*Spin-Orbit readout in NiFe/Pt heterostructures for Magneto-Electric Spin-Orbit logic*
Carlo Zucchetti		*Spin-orbitronics at a topological insulator/semiconductor interface*
Marta Brioschi		*Investigating magnetoelastic resonances by time-resolved polarimetry*
Marco Malvestuto		*The MagneDyn beamline at the FERMI free electron laser*

MC_25: Design, synthesis and applications of novel 2D and 1D carbon materials I

Chairman: Carlo Spartaco Casari Room 26.1.1

Meike Sthr	(Inv)	*Graphene nanoribbons vs. 1D metal-coordinated polymers: influence of chirality as well as substrate*
Sawomir Szafert		*1-Halopolyynes as substrates for organic, organometallic and materials chemistry*
Pietro Marabotti		*The interplay between the structural, vibrational, and optoelectronic properties of sp-carbon chains by UV Resonance Raman spectroscopy*
Simone Melesi		*Electorspinning of polymeric nanofibers embedding linear carbon chains produced with Pulsed Laser Ablation in Liquid*

Yifan Zhang		*The growth of carbon chains inside carbon nanotubes*
Davide Romanin		*Excitonic switching across a Z2 topological phase transition in pi-conjugated poly-acenes polymers*
Sebastian Heeg		*Raman spectroscopy of isolated chains of confined carbyne*
Stefano Pecorario		*Cumulenic sp-Carbon Atom Wires as Solution Processable Semiconductors for Organic Electronics*

MC_02: 50 years of SIBPA: a journey through the molecules of life I

Chairman: Antonella Battisti Room 26.1.2

Antonella Battisti		*50 years of SIBPA: a journey through the molecules of life*
Carlo Musio	(Inv)	*SIBPA 1973-2023: Fifty years well lived for the rise of biophysics and the consolidation of interdisciplinary science in Italy*
Cristiano Viappiani	(Inv)	*The sound of molecules*
Mauro Manno		*Extracellular vesicles based technologies for next-generation drug-delivery*
Stefania Abbruzzetti		*Hemeproteins: old proteins, new functions.*
Antonella Sgarbossa		*Natural biomolecules as sources of inspiration for novel therapeutic approaches*
Ines Delfino		*Study of X-ray irradiation effects on cells by Raman micro-spectroscopy and multivariate analysis*
Valentina Notarstefano		*FTIR and Raman microspectroscopies in biophysics: a new tool to uncover the complex structure of biomolecules, cells, and tissues*

MC_45: Charge transport in molecules and biosystems at different scales: going beyond traditional electronics I

Chairman: Linda A. Zotti Room 26.1.4

Elke Scheer	(Inv)	*Magnetotransport in Radical Single-Molecule Junctions*
M. Teresa Gonzlez	(Inv)	*Quantum phenomena in single-molecule circuits: from nano-wires to nano-potentiometers*
Nora Gildemeister		*Modelling charge transport properties of dipolar self-assembly merocyanines: the role of static and dynamic disorder.*
Carlos Roldn Piero		*Electron Transport through Metal-Protein-Metal junctions*
Edmund Leary		*How does antiaromaticity affect single molecule conductance?*
Yossi Paltiel	(Inv)	*Chiral Spintronics*
Juan Jos Palacios	(Inv)	*Group-theoretic approach to chirality induced spin selectivity in molecular junctions*

MC_10: Two-dimensional excitonic insulators I

Chairman: Elisa Molinari — Room 26.1.5

Massimo Rontani		*Overview*
David Cobden	(Inv)	*Peculiar behavior in two-dimensional semimetals such as WTe2*
Daniele Varsano		*Theory of the excitonic insulator phase in monolayer WTe2*
Michael S. Fuhrer		*Origin of spatial modulations of the local density of states in WTe2*
Claudia Cardoso		*Anomalous plasmon dispersion in topological semimetals*
Andrea Blason		*Exciton topology and condensation in a model quantum spin Hall insulator*
Francois Dubin		*From Mott insulators to checkerboard solids with dipolar excitons*
Sara Conti		*Chester Supersolid of Excitons in Semiconductor Heterostructures*
Igor Bondarev		*Magnetic-field-induced Wigner crystallization of charged interlayer excitons in van der Waals heterostructures*

GS_04: Complex systems I

Chairman: Stefano Ruffo — Room 26.1.6

Sarah A.M. Loos	(Inv)	*Stochastic thermodynamics of a particle in a correlated near-critical field*
Alexander Balatsky	(Inv)	*Quantum Order Rectification*
Matteo Pancaldi		*Terahertz electric-field driven dynamical multiferroicity in paraelectric STO*
Maxine M. McCarthy		*The emergence of topological phases and protected states in finite chiral structures*
Fabio Ferri		*Variance analysis of dynamic light scattering data*
Rui Vilarinho		*The role of structural distortions in triggering the metal to insulator transition in NdNiO3*
Vitaly Kalikmanov		*Effective binary model of multi-component nucleation*

MC_35: New physics concepts for energy and environmental nanomaterials

Chairman: Mauro Ricco — Room 25.1.1

Daniele Pontiroli	(Inv)	*Carbon Nanomaterials for Energy Storage Applications*
Senentxu Lanceros-Mendez	(Inv)	*Hybrid nanocomposite membranes: a common ground for water remediation and energy storage applications*
Luca Bellucci	(Inv)	*In silico design of graphene-based materials for energy storage*
Hugo Aramberri	(Inv)	*Theoretical studies of antiferroelectrics for energy storage*

Jos Miguel Garca-Martn		*Applications in energy and environment of nanocolumnar films*
Daniela Santos		*Bioinspired Cyclic Dipeptide Functionalized Nanofibers for Thermal Sensing and Energy Harvesting*
Maria Chiara Bossuto		*CuInS2 quantum dots characterization by means of spectroscopical and diffraction methods*
Luisa De Marco		*Hybrid Nnostructured Systems for Sustainable Batteries*

MC_36: Curvilinear condensed matter I

Chairman: Carmine Ortix — Room 25.1.2

Ivan Vera Marun	(Inv)	*Oblique spin injection and quantum transport in 1D-contact graphene architectures*
Giuseppe Ronco		*Shaping excitons distribution in 2D WSe2 via external strain field for positioned quantum emitters with stable magnetic response*
Massimiliano Stengel	(Inv)	*Flexoelectricity and flexomagnetism in two-dimensional crystals*
Matteo Springolo		*Unconventional linear flexoelectricity in two-dimensional materials*
Vladimir M. Fomin	(Inv)	*Quantum Interference in Optical Mbius-Strip Microcavities: Experiment vs Theory*

MC_06: Physics of avalanche phenomena I

Chairman: Mikko Alava — Room 25.1.3

Kirsten Martens	(Inv)	*Elasto-plastic modeling of avalanches in the yielding transition*
Eduard Vives	(Inv)	*Universality in labquakes: failure of porous materials under compression*
Ezequiel Ferrero		*Sub-critical down-energy creep from periodic variations of ambient conditions*
Tero Mkinen		*Portevin-Le Chatelier shear bands as avalanches*
Lasse Laurson		*Asymmetric roughness of elastic interfaces in random media*

MC_34: Materials & devices for solar and thermal to electrical energy conversion I

Chairman: Alessandro Bellucci — Room 25.1.4

Alireza Nojeh	(Inv)	*Thermionic energy conversion: complex physics disguised as a simple concept*
Riccardo Polini		*Sunny diamond/silicon structures*
Valerio Serpente		*Hybrid Thermionic Generators for Solar and Thermal Energy Conversion*
Matteo Mastellone		*Periodic surface nanotexturing induced by ultrashort laser pulses for selective absorbers and defect engineered solar cells*

Eleonora Bolli		*Work function and negative electron affinity films for thermionic energy conversion*
Stefano Iacobucci		*Relevance of low energy electron generation mechanism to the efficiency enhancement of photo-thermionic converters*
Antonio Santagata		*A New Route for Generating Photocatalytic Nanostructured Materials for Conversion of Concentrated Solar Radiation*
Luigi Vesce	(Inv)	*Ambient air meniscus coating of efficient and sustainable perovskite solar modules*

MC_28: Ferroic and multiferroic van der Waals materials

Chairman: Marco Gibertini Room 25.1.5

Riccardo Comin	(Inv)	*A type-II multiferroic in two dimensions*
Silvia Picozzi	(Inv)	*Spin-induced Multiferroicity in 2D Transion Tetal Halides*
Efrn Navarro-Moratalla	(Inv)	*Chromium triiodide: intricacies at the mesoscale in a van der Waals magnetic material*
Thomas Olsen	(Inv)	*Ferroelectric and type II multiferroic order in two-dimensional materials from high throughput computational screening*
Stanislav Kamba	(Inv)	*Terahertz magnetic and lattice excitations in van der Waals ferromagnet VI3*

MC_54: Hybrid superconductor-semiconductor devices for quantum technology applications I

Chairman: Ady Stern Room 25.1.6

Katharina Franke	(Inv)	*Diode effect in Josephson junctions with a single magnetic atom*
Sebastian Bergeret	(Inv)	*Magnetoelectric effects and non-reciprocal transport in superconducting systems*
Nicola Paradiso		*Sign reversal of the AC and DC supercurrent diode effect and 0--like transitions in ballistic Josephson junctions*
Andreas Costa		*Supercurrent diode effect in 2DEG-based Josephson junctions*
Vlad Pribiag		*Hybrid superconductor-semiconductor multi-terminal Josephson junctions*
Denis Kochan		*Anisotropic vortex squeezing and supercurrent diode effect in non-centrosymmetric Rashba superconductors*
Bianca Turini		*Josephson Diode Effect in High-Mobility InSb Nanoflags*
Carlo Ciaccia		*Gate Tunable Josephson Diode in Proximitized InAs Supercurrent Interferometers*

MC_11: (LONE2023) Localized nonlinear excitations in condensed matter: experiments and theory I

Chairman: Masayuki Kimura Room CIDiS 501

Sergej Flach	(Inv)	*Thermalization Universality Classes for Weakly Nonintegrable Many-Body Dynamics*
Georgios Kopidakis	(Inv)	*Localized states in low-dimensional materials and nanostructures*
Yann Chalopin	(Inv)	*Hidden Landscapes of Protein Functions*
Jonathan Wattis	(Inv)	*Breathers in two dimensional triangular Klein-Gordon lattices*
Duilio De Santis		*Noise-induced sine-Gordon breathers in ac-driven long Josephson junctions: Emergence and detection*

MC_12: Coherent dynamics in quantum materials I

Chairman: Gregor Jotzu Room CIDiS 502

Peter Hommelhoff	(Inv)	*Ultrafast coherent electron dynamics in graphene*
Hadas Soifer	(Inv)	*Band resolved view on ultrafast photocurrents*
Davide Sangalli	(Inv)	*Coherent exciton dynamics from first principles*
Anna Galler		*Mapping light-dressed Floquet bands by highly nonlinear optical excitations*
Mattia Udina		*Terahertz Driven Ionic Kerr effect in SrTiO3*
Mariana Gomes		*Magnetic-field induced spin transition in NdFeO3*
Angela Montanaro		*Clocking superconducting fluctuations in cuprates: a covariance-based approach*
Ludwig Mathey	(Inv)	*Light-induced dynamics in superconductors and graphene*

MC_20: Advanced photoemission studies of 2D and quantum materials I

Chairman: Luca Bignardi Room CIDiS 503

Alla Chikina	(Inv)	*Provoking topology by octahedral tilting in transition metal oxides*
Sahar Pakdel	(Inv)	*What can high throughput studies bring to the table: Constructing a database of 2500 Van der Waals homobilayers*
Monika Schied		*Growth and structure of two-dimensional single-layer HfS2 on Au(111)*
Alena Nierhauve		*In Operando Soft X-Ray Photoemission Spectroscopy of TMDC Devices*
Jose Avila		*Direct electronic structure determination of 2D materials using a Nano-ARPES facility at ANTARES beamline*
Giovanna Feraco		*Nano-ARPES investigation of twisted bilayer WS2*
Jill Miwa	(Inv)	*Photoemission spectroscopy of quantum materials*
Ivana Vobornik		*TaCoTe2: A Candidate Magnetic Dirac System with a Large Intrinsic Nonlinear Hall Effect*

MC_23: Strongly disordered systems II

Chairman: Igor Yurkevich Room 26.0.1

Aviad Frydman	(Inv)	*Pressure induced superconductor-insulator-transition*
Moshe Schechter	(Inv)	*Interaction gap and glass dynamics of tunneling two-level defects in amorphous solids*
Igor Lerner	(Inv)	*Coulomb staircase in non-thermalised quantum dots*
Miguel Gonalves	(Inv)	*Short-range interactions are irrelevant at the quasiperiodic-driven Luttinger Liquid to Anderson Glass transition*
Joo Santos Silva	(Inv)	*Role of Disorder in Nodal Loop Semimetals*

GS_08: Carbon based materials II

Chairman: Rahda Boya Room 26.0.2

Stampfer Christoph	(Inv)	*Quantum dots in bilayer graphene*
Dario Marchiani		*Tuning the electronic response of K-doped Nanoporous Graphene*
Andrea Silva		*Moving shadows: conventional and unconventional dragging of moir patterns in 2D bilayers under temperature gradient*
Jin Wang		*Moir Buckling Transition and Bending Stiffness Collapse of Twisted Bilayer Graphene*
Federico Bisti		*Indisputable kink origin and band flattening demystification in graphene*
Enrique Diez		*Phonon-mediated room-temperature quantum Hall transport in graphene*
Fereshte Ghahari Kermani		*Quantized States, Berry Phases, and Quantum-Hall Wedding-Cake structures in Graphene Quantum Dots*
Sofia Sturari		*Electrical properties of carbon-based nanomaterials: influence of surface terminations on conductivity*
Guoxing Li		*Graphdiyne-based fast-charging lithium-ion batteries*

GS_05: Strongly correlated electron systems II

Chairman: Milan Radovic Room 26.0.3

Maria Jose Calderon	(Inv)	*Heavy quasiparticles and cascades without symmetry breaking in twisted bilayer graphene*
Vittorio Bellani		*Parton fractional quantum Hall states in graphene van der Waals heterostructures*

Giacomo Prando		*Spatially-textured charge-density wave phase in hydrogen-intercalated 1T-TiSe2*
Tommaso Cea		*Superconductivity induced by the intervalley Coulomb scattering in a few layers of graphene*
Johann Kroha		*Quantum spin liquid in a two-impurity Kondo system with non-local RKKY coupling*
Vinayak M. Kulkarni		*Anderson Impurities In Edge States with Nonlinear Dispersion*
Andrea Blason		*Unveiling the Significance of Zeroes of the Green's Function in Strongly Correlated Materials*

GS_10: Magnetic materials and spintronic II

Chairman: Riccardo Bertacco Room 26.0.4

Gianluca Gubbiotti	(Inv)	*Exploring the third dimension in magnonics*
Obed Alves Santos		*Magnon confinement in all-on-chip magnon-magnon hybrid system*
Lev Shchur		*Effect of Anisotropy on Critical Temperature Estimation Using Machine Learning*
Andrea Del Giacco		*Thermal laser patterning of YIG structures for magnonics*
Abdelhadi El Hachmi		*Crystal structure and magnetic properties of Sr3Fe2+xMo1xO93x/2 (x = 0.45, 0.60, and 1)*
Maria Cocconcelli		*Reconfiguring magnonic devices via permanent micro-magnets*
Valerio Levati		*Magnetic nanopatterning of YIG films via direct laser writing for magnonics*
Davide Girardi		*Observation of three-dimensional spin-wave dynamics, localization and interference in a synthetic antiferromagnet*
Yossi Paltiel		*Chiral spintronics*
Valentino Romano		*Spin depolarization mechanisms of layered perovskites*

MC_25: Design, synthesis and applications of novel 2D and 1D carbon materials II

Chairman: Sabine Maier Room 26.1.1

Frank Ortmann	(Inv)	*Band structure tuning and analysis of 2D Covalent Organic Frameworks*
Ning Wang		*Controllable Preparation and Property Regulation of Graphdiyne*
Tonggang Jiu		*Functionalized Graphdiyne for Performance Enhancement of Solar Cells*
Paolo D'Agosta		*On-surface synthesis and in-situ characterization of 2D graphdiyne-like networks on metal surfaces*

Yuliang Li	(Inv)	*Controlled growth aggregation of two-dimensional carbon-graphdiyne*
Yurui Xue		*Graphdiyne based multi-scale catalytic systems*
Yanbing Guo		*Graphdiyne: An Emerging 2D Carbon Material for Environmental Remediation*
Abhijitha V G		*GraphdiyneA Two-Dimensional Cathode for Aluminum Dual-Ion Batteries with High Specific Capacity and Diffusivity*

MC_02: 50 years of SIBPA: a journey through the molecules of life II

Chairman: Maria Grazia Ortore Room 26.1.2

Martino Bolognesi	(Inv)	*From X-rays to electrons: revolutions in protein 3D structure analysis*
Andrea Saponaro		*Structural determinants of the Ivabradine block of pacemaker HCN channels*
Vincenzo Martorana		*Investigation of a MMACHC mutant from cblC disease*
Caterina Ricci		*TDP-43 structure and interactions*
Francesco Stellato		*Cu(I)/Cu(II)-Amyloid complexes: X-ray Absorption Spectroscopy & multi-scale molecular dynamics*
Alberto Mezzetti		*Time-resolved FTIR spectroscopy on photosynthetic Reaction Centers*
Antonino Natalello		*Isotope-edited Infrared spectroscopy for the study of protein co-aggregation and heterotypic interactions*
Giorgia Brancolini		*Deep Learning Algorithms, Enhanced Sampling and Single-Molecule FRET experiments to disclose the Conformational Ensembles of an Intrinsically Disordered Protein.*
Alessandro Mossa		*Multiscale modeling of the protein ACE2 for anti SARS-CoV-2 drug design*

MC_37: Nanomechanical and electromechanical systems I

Chairman: Alexander Eichler Room 26.1.3

Adrian Bachtold	(Inv)	*Boosting the nonlinearity of mechanical resonators approaching the quantum regime*
Elke Scheer	(Inv)	*Strongly nonlinear dynamics and fluctuations in micronscale membrane resonators*
Mengqi Fu		*Electrothermally tunable metal-graphene-siliconnitride membrane mechanical device*
Menno Poot		*Spatially mapping of intrinsic and readout nonlinearities in micromechanical membranes*
Lorenzo Bernazzani		*Fluctuations-driven coupled oscillators as a quantum analog*

Letizia Catalini		*Ultracoherent nanomechanical resonators for spin detection*

MC_45: Charge transport in molecules and biosystems at different scales: going beyond traditional electronics II

Chairman: Edmund Leary — Room 26.1.4

Nadav Amdursky	(Inv)	*Charge transport across doped nanomaterials at different scales: From molecular electronics to conductive self-assembled biopolymers*
Anna Grazia Monteduro	(Inv)	*Biomolecular systems: from bioelectronics to biosensor*
Eszter Papp		*Carrier-Cascade Model for Solid-State Conductance across Proteins*
Nina Tverdokhleb		*SMELLODI. Smart Electronic Olfaction for Body Odor Diagnostics*
Eleonora Alfinito		*Photosensitive proteins to design pH-based bio-rheostat: a proof of concept*
Agostino Migliore	(Inv)	*Uncovering the charge-transfer role of adenine in DNA repair by photolyases*
Hector Vazquez	(Inv)	*DFT-based calculation of single molecule conductance for tens of thousands of junction geometries*

MC_10: Two-dimensional excitonic insulators II

Chairman: Hope Bretscher — Room 26.1.5

Philip Kim	*Transport signature of magnetoexciton insulating state in electron-hole graphene double-layers*
Filippo Pascucci	*Josephson effect and superfluidity in exciton heterobilayers*
Fredrik Nilsson	*Ab initio predictions of new exciton insulators*
Youngwook Kim	*Quantum Hall superfluid in twisted bilayer/double bilayer graphene*
Peter Littlewood	*Non reciprocal phase transitions in polaritonic systems*
Matteo D'Alessio	*Excitons in bilayer WTe2*
Friedhelm Bechstedt	*Can Xenes be excitonic insulators?*
Miki Bonacci	*Possible excitonic instability in AsCuLi2*
Yuanchang Li	*Materials Design of Magnetic and Topological Excitonic Insulators from First-principles*
Huaiyuan Yang	*Spin-Triplet Topological Excitonic Insulators in Two-dimensional Materials*

MC_49: Italian plasma physics I

Chairman: Stefano Atzeni — Room 26.1.6

Minicolloquium Opening		*Minicolloquium Opening*
Leonida A. Gizzi	(Inv)	*Laser and plasma studies at the intense laser irradiation laboratory*
Andrea Uccello	(Inv)	*Exploring magnetic confinement fusion plasma-material interaction: the road to the BiGyM linear device*
Massimo Ferrario	(Inv)	*The EuPRAXIA@SPARC_LAB project: a plasma-based accelerator user facility for the next decade*
Lionello Marrelli		*Status of the RFX-mod2 device and upgrades by the NRRP funded project NEFERTARI*
Franco Alladio		*PROTO-SPHERA: a magnetic confinement experiment which emulates the jet + torus astrophysical plasmas*
Gustavo Granucci		*Status of the Divertor Tokamak Test Facility project*

MC_16: Kagome metals: recent breakthroughs and future perspectives

Chairman: Domenico Di Sante — Room 25.1.1

Riccardo Comin	(Inv)	*Fermiology of the 2D kagome lattice*
Titus Neupert	(Inv)	*Effective theory of charge orders in Kagome metals*
Ilija Zeljkovic	(Inv)	*Cascade of symmetry-broken electronic states in kagome superconductors*
Samuele Sanna	(Inv)	*Exploring the symmetry breaking cascade of 2D Kagome superconductors*
Zurab Guguchia		*Tunable unconventional superconductivity and time-reversal symmetry-breaking charge order in kagome materials RbV3Sb5and KV3Sb5*
Anita Guarino		*Binary bilayer Kagome compounds grown by optical floating zone technique*
Stefan Enzner		*Phonon Fluctuation of CDW in AV3Sb5 Kagome*

MC_36: Curvilinear condensed matter II

Chairman: Denys Makarov — Room 25.1.2

Klaus Richter	(Inv)	*Dirac-type charge carrier dynamics and Landau levels on curved surfaces*
Mikhail Pletyukhov		*Realization of a three-dimensional quantum Hall effect in a Zeeman-induced second order topological insulator on a torus*
Cristina Bran	(Inv)	*Domain Wall Dynamics in Cylindrical Nanostructures*
Rui Xu		*Geometrically designable nanostructure arrays mediated by anodic aluminum oxide templates*
Sara Laureti		*Thin film heterostructures based on Co/Ni synthetic antiferromagnets on polymer tapes: towards a sustainable flexible spintronics*
Sawssen Slimani		*Hollow nanostructures: Exploring magnetic disorder at the nanoscale*

Oleksandr V. Pylypovskyi	(Inv)	*Chiral and anisotropic responses in curved anitferromagnetic spin chains*

MC_06: Physics of avalanche phenomena II

Chairman: Stefano Zapperi Room 25.1.3

Lucilla de Arcangelis	(Inv)	*Scaling of avalanche shape and activity power spectrum in neuronal networks*
Silvia Bonfanti	(Inv)	*Perspectives on Glass Fracture: From Silica Glasses to High Entropy Metallic Glasses*
Giuseppe Consolini		*On the avalanching dynamics of Earths magnetosphere and its modeling through jump-diffusion stochastic processes*
Federico Ettori		*Temperature effect on magnetization avalanches in 2D Ising model with quenches randomness*
Stefan Hiemer		*Transition State Theory based Thermally Activated Breakdown in Fiber Bundles: Exact Solutions and Asymptotics for the Lifetime Distribution, Average and Variance*

MC_34: Materials & devices for solar and thermal to electrical energy conversion II

Chairman: Alessandro Bellucci Room 25.1.4

Antonio Mart	(Inv)	*Hot carrier solar cells and thermoelectric converters: the same thing?*
Gideon Segev	(Inv)	*Operando characterization of charge extraction and recombination profiles in solar cells with nanoscale resolution*
Roberto Termine		*Different interacting Light-Matter Regimes: the Meta-Voltaic System*
Julien Legendre		*Near-field thermophotonic energy harvesting from heterostructure-based devices with bandgaps in the near-infrared range*
Francesco Rossella	(Inv)	*III-V Semiconductor nanowire thermoelectrics*
Hocine Chorfi		*Pressure effects on the Thermodynamics Properties of AgCl: First Principal Calculations*
Alberta Carella		*SnCr2S4 nanowhiskers as building blocks of ultra-low thermal conductivity materials*
Muhammad Isram		*Thermoelectric and Structural Properties of Sputtered AZO Thin Films with Varying Al Doping Ratios*

MC_27: 2D materials for spintronics

Chairman: Jagoda Slawinska Room 25.1.5

Jaroslav Fabian	(Inv)	*Proximity spin-orbit coupling and exchange coupling in graphene in twisted heterostructures*

Marcos Guimaraes	(Inv)	*Two-Dimensional Materials for Spin-Orbitronics*
Zeila Zanolli	(Inv)	*Quantum Materials Spintronics*
Blint Szentpteri		*Tuning the proximity induced spin-orbit coupling in graphene based heterostructures*
Evgenii Barts		*Unlocking persistent spin textures in real materials*
Francesco Goto		*Fine tuning of the spin-polarization of the empty states in metastable Bismuth layers*
Daniela Pacil		*One-dimensional Rashba states with unconventional spin texture in Bi chains*
Daria Belotcerkovtceva		*Intricacies and Endurance of Graphene Spintronic Devices*

MC_54: Hybrid superconductor-semiconductor devices for quantum technology applications II

Chairman: Katharina Franke Room 25.1.6

Ady Stern	(Inv)	*Novel platforms for engineered topological superconductivity*
Srijit Goswami	(Inv)	*Majorana bound states in artificial Kitaev chains*
Cristian Urbina		*Spin and interactions effects on Andreev states in hybrid Josephson junctions*
Pasquale Marra		*Controlling Majorana modes via inhomogeneous superconductivity in topological superconductors and superfluids*
Samuel D. Esribano		*Semiconductor-Superconductor-Ferromagnetic heterostructure as a Platform for Topological Superconductivity*
Flavio Ronetti		*Crossed Andreev reflection in spin-polarized chiral edge states due to the Meissner effect*
Olivr Krtssy		*Andreev molecule in superconductors - parallel InAs nanowire hybrid*
Lucia Vigliotti		*New insights into Quantum Spin Hall based Josephson junctions*

MC_11: (LONE2023) Localized nonlinear excitations in condensed matter: experiments and theory II

Chairman: Yann Chalopin Room CIDiS 501

Larissa Brizhik	(Inv)	*Soliton mechanism of the long-range electron transport in donor--acceptor systems mediated by polymers*
Michael Russell	(Inv)	*Role of quodons in irradiation of materials*
Masayuki Kimura	(Inv)	*Traveling Localized Vibrations Generated by an External Exciter Attached to an Edge of a Mass-spring ladder with Piecewise Linear Coupling*
Stefano Ruffo	(Inv)	*Burgers turbulence in the Fermi-Pasta-Ulam-Tsingou model*

Juan Archilla	(Inv)	*Spectral properties of exact stationary and moving polarobreathers*

MC_12: Coherent dynamics in quantum materials II

Chairman: Umberto de Giovannini Room CIDiS 502

Gianluca Stefanucci	(Inv)	*Non-Equilibrium Green's Function methods for real-time simulations of 2D materials*
Matteo Lucchini	(Inv)	*Validity of the Floquet theory with few-fs pulses*
Netanel Lindner	(Inv)	*Dynamical Symmetry Breaking in Optically Driven Two-Dimensional Materials*
Lyudmyla Adamska		*Analysis of Excitation Channels in Semiconductors under the Influence of Intense Laser Field*
Giacomo Merzoni		*First high resolution pump probe RIXS on prototypical charge transfer insulators at the EuXFEL*

MC_39: New trends in ferroelectricity I

Chairman: Silvia Picozzi Room CIDiS 503

Gustau Catalan	(Inv)	*Polarization and bulk photovoltaic effects in halide perovskites*
Jirka Hlinka	(Inv)	*On the Antiskyrmionic Topological States in Ferroelectrics*
Rmi Arras		*Effect of an electric field on ferroelectric and piezoelectric properties of the brownmillerite Ca2Al2O5*
Riccardo Rurali		*From electrophononics to photophononics: controlling heat flux with external fields*
Chiara Gattinoni		*Electrostatic effects in nanoscale ferroelectics*
Eric Bousquet		*Cavity channel design of large spin-orbital effects in Pb5Ge3O11 ferroelectric crystals*
Subhadeep Bandyopadhyay		*Potential electronic (anti-)ferroelectricity in BiNiO3*
Louis Bastogne		*First- and Second-principles study of ferroelectric domain walls in PbTiO3*

MC_31: Quantum devices in twisted graphene layers I

Chairman: Marco Polini Room CIDiS 504

Jeong Min (Jane) Park	(Inv)	*The Magic Family*
Francisco Guinea	(Inv)	*Superconducting order parameter, and superconducting junctions in twisted bilayer graphene*
Sergio Pezzini	(Inv)	*Twisted devices from CVD graphene*
Jaime Dez-Mrida	(Inv)	*Symmetry-broken Josephson junctions and superconducting diodes in magic-angle twisted bilayer graphene*

Mario Amado — *Generation and control of non-local chiral currents in graphene superlattices by orbital Hall effect*

MC_61: SMART - electron event I

Chairman: Giovanni Maria Vanacore — Room — Fisica B

Albert Polman (Inv) *Diving into the 3D plasmonic near field: electron-light-matter interactions in the ultrafast SEM*

Peter Hommelhoff (Inv) *PINEM physics in an SEM - and a bit more*

Javier Garca de Abajo (Inv) *Optical modulation of free electrons: Challenges and opportunities*

Nahid Talebi (Inv) *Phase-Locked Photon-Electron Interactions in Electron Microscopes*

Thomas Juffmann (Inv) *Electrons and Light: Ponderomotive Beam Shaping and Optical Near-field Electron Microscopy*

Zdenek Nekula — *Laser electron phase plate application: aberration corrector*

MC_59: Molecules at surfaces I

Chairman: M.Lewandowski — Room — Fisica C

Michio Okada (Inv) *Oxidation of Cu Alloy Surface by Supersonic Oxygen Molecular Beams*

Maite Alducin (Inv) *Understanding why photo-induced CO desorption dominates over oxidation on O+CO covered Ru(0001) surfaces*

Tomasz Ossowski (Inv) *Interaction of atomic and molecular oxygen with iron nitride surfaces: Model theoretical studies on ultrathin iron nitride films on Cu(001)*

Mario Rocca — *Prominence of Terahertz Acoustic Surface Plasmon excitation in Gas-Surface interaction with Metals*

Maria Rutigliano — *Inelastic scattering of molecules from the surfaces: the role of long-range interactions*

Ephraim Thomas Mathew — *The effect of periodically corrugated substrate on SERS anisotropy of organic molecules*

Carmine Anzivino — *Sable chains of anisotropic colloidal particles at fluid-fluid interfaces*

MC_14: Quantum gases as analogues of condensed matter systems I

Chairman: Jacques Tempere — Room — Fisica D

Giacomo Mazza (Inv) *Dissipative dynamics of fermionic superfluids with many-body losses*

Andrea Perali (Inv) *Sweeping across the BCS-BEC crossover, reentrant, and hidden quantum phase transitions in two-band superconductors by tuning valence and conduction bands*

Luca Salasnich — *Bose-Einstein Condensation and Quantized Vortices on the Surface of a Sphere*

Robbe Ceulemans		*Non-equilibrium steady-states and critical slowing down in the dissipative Bose-Hubbard model*
Alexander Yakimenko		*Controllable modification of matter-way phase and density in curved waveguides with toroidal topology*
Hadrien Kurkjian		*Amplitude oscillations in a condensed Fermi gas at nonzero temperature*

MC_17: Cavity-modified material properties I

Chairman: Enrico Ronca Room Fisica E

Dominik Sidler	(Inv)	*Local vs. collective interplay of (thermal) fluctuations in polaritonic chemistry*
Thibault Chervy	(Inv)	*Tuning across vibrational light-matter coupling regimes in van der Waals crystals*
Henrik Koch	(Inv)	*Recent advances in ab initio modeling of molecular polaritons*
Discussion I		
I-Te Lu		*Refined photon-free QEDFT for light-matter interactions of materials inside a cavity*
Thomas Schnappinger		*Cavity-Born-Oppenheimer Hartree-Fock: Vibronic-Strong-Coupling beyond a single molecule*
Lukas Konecny		*Relativistic Quantum-Electrodynamical Density Functional Theory for Cavity Engineering of Excited States*

MC_50: Soft matter and environmental challenges I

Chairman: Mikko Alava Room Fisica T

Emanuela Del Gado	(Inv)	*Reducing cement and concrete environmental impact: a physicist's perspective*
Session break		*Empty space in the session*
Guido Raos		*Chain scission: dealing with a key player in polymer mechanics and degradation*
Maurizio Bellotto		*Cohesive suspensions: interaction mechanisms and their role in industrial processing.*
Annie Colin		*Natural Natural and forced convection in multi-phasic electrochemical systems*
Timothe Derkenne		*Improving Bleu energy efficiency: Nafion membrane resistance measurement and concentration polarization characterization*
Aymeric Allemand		*Anomalous ionic transport in tunable angstrom-size water films on silica*
Jol Martin Dalmas Cea		*Computational Study on the Effect of Inactive Fillers in Hybrid Electrolytes using Empirical Molecular Dynamics*

MC_47: Exciton dynamics and transport in quantum materials I

Chairman: Stefania Pagliara — Room: Fisica I

Stefano Dal Conte	(Inv)	*Charge transfer and interlayer exciton dynamics in TMD heterostructures*
Christoph Gadermaier		*Strongly enhanced coherent response in photoexcited monolayer 2H-MoTe2*
Daniel Vaquero		*Excitonic states in monolayer transition metal dichalcogenides revealed by low-temperature photocurrent spectroscopy*
Federico Cilento	(Inv)	*Ultrafast optical rotation in bulk transition metal dichalcogenides*
Samuel Palato	(Inv)	*Quasiparticle dynamics in tungsten disulfide monolayers and organic hybrid*
Nasrin Farahani		*Theoretical description of x-ray absorption spectroscopy of excitons*

MC_46: Photodeformable polymer films: materials, methods, models, applications I

Chairman: Jaana Vapaavuori — Room: Fisica L

Ishow Elna	(Inv)	*Azo molecular materials: how local cooperativity informs on large-scale reorganization?*
David McGee	(Inv)	*Polarization modulation techniques for photopatterning complex surface relief microstructures in azopolymer thin films*
Albert Schenning	(Inv)	*Light responsive liquid crystalline polymers for untethered soft robots*
Vincenzo D'Ambrosio	(Inv)	*Structured light: a tool for quantum information and ultra-sensitive measurements*
Anna Kozanecka-Szmigiel	(Inv)	*Extraordinarily deep surface relief structure inscribed holographically in azo poly(ether imide)*
Carsten Henkel		*Real-time probing of orientation and deformation after pulsed irradiation of azo-polymer films*

MC_09: Fundamental bounds in nano engines I

Chairman: Rosa Lopez — Room: Fisica U

Giuliano Benenti	(Inv)	*Quantum thermal engines: selected results and open problems*
Dario Ferraro	(Inv)	*Fast charging of Dicke Quantum Batteries*
Francesco Giazotto	(Inv)	*A Josephson Bipolar Quantum Heat Engine*
Mykhailo Moskalets		*Neutral excitations produced on-demand in the Fermi sea*

GS_09: Other low dimensional materials I

Chairman: Stefan Heun Room 26.0.1

Laura Susana	(Inv)	*Atomic scale mapping of the electric field and charge density in BN nanostructures by 4D-STEM*
Subrata Rakshit		*The structure and properties of bilayer borophene*
Chithra Harihara Sharma		*Addressing the spin-valley flavors in moir mini-bands of MoS2*
Beatrice D'Al		*Bare vs encapsulated TMD monolayers: role of defects in the pressure evolution of the excitonic bands*
Dylan Jones		*Flat bands, localised states, and non-trivial topology of one-dimensional Lieb superlattices*
Sahar Pakdel		*Computational stacking reveals emergent properties of 2D van der Waals bilayers*
Polina Sheverdyaeva		*Giant tunable out-of-plane spin polarization in topological antimonene*
Andrea Candini		*A scanning probe view on the photoreactivity of all-organic Core@Shell Nanoparticles: the effect of photoinduced charge separation from enhanced neuronal photostimulation to in vivo tunable ROS production*
Elena Stellino		*Far Infrared Study of Pressure-Tunable Fano Resonance and Metallization Transition in Semiconducting Transition Metal Dichalcogenides*
Paolo Moras		*Electronic structure and spin texture of Bi/InAs(100)*

GS_04: Complex systems II

Chairman: Stefano Bonetti Room 26.0.2

Giuseppe Luca Celardo	(Inv)	*Cooperative Shielding in long range interacting systems: localization and information spreading.*
Giulia Fischetti	(Inv)	*Ensemble reconstruction of the Worldwide Airport Network*
Daniel Maria Busiello		*The architecture of information processing in living systems*
Laura Dal Compare		*Stabilization of Dense Liquid Crystalline Phases by Electrostatic Interactions: a Molecular Dynamics Study*
Andrea Solfanelli		*Logarithmic, Fractal and Volume-Law Entanglement in a Kitaev chain with long-range hopping and pairing*

Cem Yuce	*Coexistence of extended and localized states in one-dimensional non-Hermitian Anderson model*
Duilio De Santis	*Thermal signature of Josephson breathers*

GS_05: Strongly correlated electron systems III

Chairman: Maria José Calderon Room 26.0.3

Federico Balduini	(Inv)	*Probing the chiral Fermi surface of the Weyl semimetal NbP using Transverse Electron Focusing*
Arianna Poli		*Transport exponent crossovers in interacting Weyl semimetals*
Diego Subero		*Exploring the scaling laws of the current-voltage characteristics of a Josephson junction in a resistive environment.*
Chi Ming Yim		*A surface-polarity-driven valence-ordered non-periodic surface reconstruction*
Lorenzo Crippa		*Strong correlation and non-hermitian topology: the role of symmetries*

GS_10: Magnetic materials and spintronic III

Chairman: Giacomo Prando Room 26.0.4

Alessandro Chiesa	(Inv)	*Chirality-induced spin selectivity: a powerful tool for quantum technologies*
Matteo Cococcioni		*Magnetic properties of octonuclear molecular magnets from first-principles*
Ravi Kaushik		*Towards temperature dependent exchange interactions in CsO2 from first principles*
Karma Tenzin		*Collinear Rashba-Edelstein effect in chiral crystals*
Andres Camilo Garcia Castro		*Prediction of the V3AuN antiperovskite: chiral magnetism and large anomalous Hall conductivity*
Baishun Yang		*Berezinskii-Kosterlitz-Thouless Transition in Monolayer Magnets*
Oksana Koplak		*First-Order Reversal Curves analysis of the interphase coupling and switching fields in W/SmCo/W heterostructures*
Rafael Alvaro Flores Calderon		*Irrational moments in a diluted classical spin liquid*
Federico Motti		*Effect of periodicity on the magnetic anisotropy in spinel oxide superlattices*

MC_25: Design, synthesis and applications of novel 2D and 1D carbon materials III

Chairman: Pavel Jelinek Room 26.1.1

Pascal Ruffieux	(Inv)	*On-surface synthesis of nanographene spin clusters and chains*

Xabier Diaz de Cerio		*Tuning quantum electronic transport and anisotropy in nanoporous graphene*
Roberto DAgosta		*Controlling 2D materials through strain*
Oleg Yazyev	(Inv)	*Graphene nanoribbon junctions as elementary components of nanoelectronic circuits*
Feifei Xiang		*Zigzag Graphene Nanoribbons with Periodic Porphyrin Edge Extensions*
Marco Menegazzo		*Atomic force microscopy and Raman spectroscopy combined to in-situ and real time investigation of graphite anion intercalation*

MC_02: 50 years of SIBPA: a journey through the molecules of life III

Chairman: Antonella Battisti Room 26.1.2

Francesco Cardarelli	*New paradigms in nanoscale biophysics using spatiotemporal fluctuation spectroscopy: looking at life inside cells*
Nicola Galvanetto	*Linking molecular-scale to mesoscale dynamics in biomolecular condensates*
Valeria Vetri	*Analysis of Transportan 10 cell penetrating peptide interactions with model membranes*
Giuseppe Sancataldo	*Phasor-FLIM Analysis of Paper Ageing Mechanism with Carbotrace 680 Dye*
Loredana Casalis	*Biophysical characterization of small extracellular vesicles interaction with model plasma membranes*
Laura Andolfi	*The flagellar beating forces of spermatozoa and their relevance in reproductive medicine*
Sajedeh Kerdegari	*Definition of the mechanical properties of the cell nucleus. An integrated AFM-Brillouin microscopy analysis.*

MC_37: Nanomechanical and electromechanical systems II

Chairman: David Vitali Room 26.1.3

Silvan Schmid	(Inv)	*Photothermal microscopy and spectroscopy with nanomechanical resonators*
Clivia M. Sotomayor Torres	(Inv)	*Si and MoS2 phononic crystals for phonon-based NEMS circuits*
Andrea Vinante		*Levitated ferromagnetic sensors*
Massimiliano Rossi		*Quantum control of a levitated nanoparticles motion towards non-classical state generation*
Federico Maspero		*Integration of magnetic materials on MEMS devices*
Stefano Paolo Villani		*Topology-induced giant piezoelectricity in conjugated polymers*

MC_48: New frontiers of organic electronics I

Chairman: Adrica Kyndiah Room 26.1.4

Eleonora Macchia	(Inv)	*Single-molecule bioelectronic sensor: improving reliability with machine learning approaches*
Carlo Augusto Bortolotti	(Inv)	*Detection of Alzheimer's disease biomarker with an Electrolyte Gated Organic Transistor*
Mariapia Caputo		*Machine learning based discriminant classifier for pancreatic cancer diagnosis with Single-Molecule-with-a-large-Transistor (SiMoT) platform.*
Tobias Cramer	(Inv)	*AC amplification gain in organic electrochemical transistors for impedance-based single cell sensors*
Giulia Zoe Zemignani		*Recording the Action Potential of Cardiomyocytes via Printed Electrolyte-Gated Field Effect Transistor*
Stefano Casalini	(Inv)	*Cu-modified electrolyte-gated transistors based on reduced graphene oxide*

MC_10: Two-dimensional excitonic insulators III

Chairman: Massimo Rontani Room 26.1.5

Girsh Blumberg		*Is Ta2NiSe5 a true excitonic insulator?*
Denis Golez		*Symmetries and collective mode in excitonic insulators*
Holger Fehske		*Order, criticality, and excitations in the extended Falicov-Kimball model: A case study for the strong excitonic insulator candidate Ta2NiSe5*
Banhi Chatterjee		*Ground state symmetries and collective modes in Ta2NiSe5 - an excitonic insulator candidate*
Yuelin Shao		*Electrical Breakdown of Excitonic Insulators*
Giacomo Sesti		*Excitonic vs Mott insulator in carbon nanotubes: A proposed experimental test*
Giacomo Mazza		*Hidden excitonic quantum states with broken time reversal symmetry*
Discussion I	(Inv)	

MC_49: Italian plasma physics II

Chairman: Francesco Pegoraro Room 26.1.6

Tommaso Andreussi	(Inv)	*Air-breathing Electric Propulsion*
Simone Benella	(Inv)	*Characterizing space plasma turbulence from inertial to sub-ion scales through stochastic thermodynamics*
Fulvio Zonca	(Inv)	*Universal behaviour of frequency chirping fluctuations in magnetized plasmas*

Angelo Biagioni		*Plasma sources design for plasma-based particle accelerators*
Sofia Cristofaro		*Numerical simulation of a pair plasma cooling for the GBAR antimatter gravity experiment*
Francesco Berrilli		*The Sun as a Laboratory for Plasma Physics*
Marco Tardocchi		*GET-ART project: an alternative novel method to measure DT fusion power in magnetic confinement fusion based on detection of 17 MeV gamma rays*
Alessandro Maffini		*Carbon nanofoam targets for inertial confinement fusion experiments*

MC_09: Fundamental bounds in nano engines II

Chairman: Rosa Lopez Room 25.1.1

Marti Perarnau Llobet	(Inv)	*Pareto-optimal cycles for power, efficiency and fluctuations of driven quantum heat engines*
Robert Whitney	(Inv)	*Illusory cracks in the 2nd law of thermodynamics in quantum nanoelectronics*
Patrick Potts	(Inv)	*Nonclassical behavior in open quantum systems: wave-particle duality, entanglement, and thermo-kinetic uncertainty relations*
Irene D'Amico		*Quantum correlations as an extra resource for a generalized second law of thermodynamics*
Vasco Cavina		*Thermodynamic consistency of quantum master equations*

MC_50: Soft matter and environmental challenges II

Chairman: Laurence Ramos Room 25.1.2

Milena Corredig	(Inv)	*Future proofing food processing with soft material science*
Session break		*Empty space in the session*
Christian Ligoure		*Wetting and impregnation of banana leaves with emulsion sprays for phytosanitary applications.*
Anupam Sengupta		*Thriving through environmental changes: Lessons from the microbial world*
Giuliano Zanchetta		*Assessing the conditions for stable particle trapping in microgel suspensions in water and non-aqueous solvents*
Vincenza Ferraro		*Harnessing soft and hard matter from the livestock bone by-product through a tailor made extraction process for applications in materials, pharmaceutical and nutrition, and reduction of the environmental fingerprint of such agro-food residue*
Clemens Franz Vorsmann		*Adsorption of Nanocolloids by Polymeric Brushes: Scaling Behaviour and Computational Investigation*

MC_61: SMART - electron event II

Chairman: Andrea Kone?ná Room 25.1.4

Claus Ropers	(Inv)	*Electron-photon and electron-electron correlations in electron microscopy*
Ido Kaminer	(Inv)	*Free-electron quantum optics*
Giulia Fulvia Mancini	(Inv)	*Charge, lattice and spin interplay in the ultrafast response of photoexcited spinel Co3O4*
Sascha Schfer	(Inv)	*Fast electrons coupled to localized material resonances*
Thomas LaGrange	(Inv)	*Photonic Microresonators Enable Continuous PINEM and Ultra-High Precise Method for Calibrating EELS Spectrometers*
Simona Borrelli		*Measuring the statistics of free electrons with sub-ps resolution*
Rmi Claude		*Wavelength excitation dependence of phonon dynamics in graphite*

MC_63: Neutrons scattering in condensed matter physics

Chairman: Paolo Mariani Room 25.1.5

Monica Ceretti	(Inv)	*Exploring low temperature oxygen ion mobility in non-stoichiometric oxides by neutron scattering*
Valentina Giordano	(Inv)	*New insights on the role of local disorder on phonon dynamics and thermal transport*
Elena Garlatti	(Inv)	*The role of phonons in magnetic relaxation of molecular nanomagnets unravelled by inelastic neutron scattering*
Mark Johnson	(Inv)	*New opportunities for cutting-edge science with neutrons at the Institut Laue Langevin*
Leonardo del Rosso		*Neutron-assisted navigation in the ice phase diagram*
Michael Di Gioacchino		*Role of carbohydrates in bioprotection: their interaction with model polypeptides in aqueous solution*

MC_17: Cavity-modified material properties II

Chairman: Angel Rubio Room 25.1.6

Simone Latini	(Inv)	*Designing Quasi-Particles of Light and Photo-Groundstates*
Daniele Fausti	(Inv)	*Cavity control of metal insulator tansition in 1T-TaS2*
Felice Appugliese	(Inv)	*Cavity vacuum fields induced breakdown of the integer quantum Hall effect.*
Discussion II		
Lukas Weber		*Quantum Monte Carlo study of the cavity-coupled electron gas*
Marios Michael		*Surface phonon polaritons is the ideal cavity for 2D systems*

Francesco Troisi		*QED Solver for ab-initio cavity materials engineering*

MC_13: Tuning materials properties through controlled disorder I

Chairman: Maulik K. Patel — Room CIDiS 501

David Fischer	(Inv)	*Cryogenic ion irradiation of high-temperature superconductors in operando conditions*
Jacopo Forneris	(Inv)	*Efficient fabrication of telecom emitter in silicon upon ion implantation and ns pulsed-laser annealing*
Sviatoslav Ditalia Tcherrnij	(Inv)	*Fabrication of single photon sources based on diamond color centers by means of ion implantation*
Daniele Torsello		*Scaling laws for ion irradiation experiments in IBS*
Davide Gambino	(Inv)	*Computational investigation of radiation damage in YBCO superconducting tapes for nuclear fusion applications*
Duarte Magalhes Esteves	(Inv)	*Implantation-induced defects in Cr-doped -Ga2O3: exfoliation and luminescence sensitization*

MC_32: Emerging properties in 2D magnetic materials: single and multilayered heterostructures I

Chairman: Gianluca Gubbiotti — Room CIDiS 502

Luis Hueso	(Inv)	*Spin-orbit proximity in van der Waals heterostructures for logic devices*
Srdjan Stavri		*The Anisotropic Interlayer Exchange In Van Der Waals 2D Magnets*
Roberto Sant		*Disentangling fundamental excitations in vdW FePS3 antiferromagnet by resonsnt inelastic X-ray scattering*
Alessandro De Vita		*Orbital character and ground-state electronic properties in van der Waals semiconductors VI3 and CrI3*
Silvia Tacchi	(Inv)	*Reconfigurable magnonic systems investigated by Brillouin Light Scattering*

MC_20: Advanced photoemission studies of 2D and quantum materials II

Chairman: Davide Curcio — Room CIDiS 503

Alessandro Baraldi	(Inv)	*When each atom makes the difference: the unique properties of the oxides at the sub-nanoscale*
Charlotte Sanders	(Inv)	*Pump-Probe Photoemission: Tools for Understanding Three-Dimensionally Dispersing Systems*
Tommaso Pincelli		*Energy transfer mechanisms in 2D metal/semiconductor interfaces*
Markus Scholz		*Multiplex movie of concerted rotation of molecules on a 2D material*

Roberto Costantini		*Time-resolved X-ray spectroscopies at synchrotrons: observing the photo-induced dynamics in the sub-nanosecond time scale*
Mauro Fanciulli		*Hidden Spin Polarization of Bright and Dark Excitons in 2H-WSe2*
Andrea Marini	(Inv)	*Ultrafast nonlinear optical response of two-dimensional materials*
Mihir Date		*Novel electronic structures from near-surface stacking faults*

MC_26: Graphene qubits

Chairman: Christoph Stampfer Room CIDiS 504

Wister Wei Huang	(Inv)	*Spin and valley readouts in bilayer graphene quantum dots*
Lin Wang	(Inv)	*Valley relaxation in a single-electron bilayer graphene quantum dot*
Angelika Knothe	(Inv)	*Microscopic modelling of electrostatically induced bilayer graphene quantum dots*
Christian Volk	(Inv)	*Particle-hole symmetry protects spin-valley blockade in graphene quantum dots*

MC_23: Strongly Disordered Systems III

Chairman: C. Marrache-Kikuchi Room Fisica B

Dragana Popovic	(Inv)	*Quench dynamics in strongly disordered two-dimensional electron systems*
Kamran Behnia	(Inv)	*Nernst effect studies of disordered superconductors*
Alexander Buzdin	(Inv)	*Optical methods of flux manipulation in superconductors*
Anton V. Khvalyuk	(Inv)	*Analytic Theory of Low-Temperature Dependence of the Superfluid Stiffness in Strongly Disordered Superconductors*

MC_59: Molecules at surfaces II

Chairman: L. Vattuone Room Fisica C

Francesca Moresco	(Inv)	*Single-molecule machines at surfaces*
Letizia Savio	(Inv)	*Adsorption of Pd-cyclomtallated complexes at Ag(110)*
Alexa Adamkiewicz		*Time-resolved photoemission orbital tomography of CuPc on Cu(001)-2O*
Bruno Candelas		*Ab-initio study of Surface-Enhanced Raman Specroscopy of optimized cyanobiphenyl-4-thiol Self-Assembled Monolayers on Au(111)*
Melina Vavali		*From molecules in solution to molecules on surface: supramolecular chemistry for device manufacturing through self-assembly*
Luca Persichetti		*AlPc synthesis by spontaneous crossmetalation of ZnPc on Al(100)*
Sara Lois Cerdeira		*Synergistic molecular assemblies on Au(111)*

Daniele Paoloni		*Cu-phthalocyanine long range ordered bulk growth due to the weak interaction with highly oriented pyrolytic graphite*

MC_14: Quantum gases as analogues of condensed matter systems II

Chairman: Serghei Klimin — Room — Fisica D

Alessia Burchianti	(Inv)	*A dual-species Bose-Einstein condensate with tunable interactions*
Vladimir M. Fomin	(Inv)	*New magnetopolaron resonances in monolayers of transition metal dichalcogenides*
Filippo Pascucci		*Josephson effect and collective excitations in electron-hole bilayer heterostructure*
Francesco Lorenzi		*Universality and effective range corrections in quantum gases: from scattering parameters to the effective potential*
Matthew Houtput		*Effect of 1-electron-2-phonon interaction on large Frhlich polarons*
Koichiro Furutani		*Berezinskii-Kosterlitz-Thouless transition in a Rabi-coupled binary Bose mixture*

MC_36: Curvilinear condensed matter III

Chairman: Gaspare Varvaro — Room — Fisica E

Paola Gentile	(Inv)	*Geometric control of pair correlations, topological phases and Josephson effect in superconducting nanostructures*
Amalio Fernandez-Pacheco	(Inv)	*New effects in 3D curved nanomagnets*
Oleksii Volkov		*Chiral effects in curvilinear magnetic materials*
Jose A. Fernandez-Roldan		*Curvature-induced domain wall tilt in CrOx/Co/Pt corrugated strips*
Jan Klma		*Steering spin waves in corrugated waveguides*

MC_39: New trends in ferroelectricity II

Chairman: Gustau Catalan — Room — Fisica T

Sayeef Salahuddin	(Inv)	*CMOS+X: Integrated Ferroelectric Devices for Energy Efficient Electronics*
Mael Guennou	(Inv)	*Lattice dynamics and sublattice polarization of a displacive antiferroelectric crystal*
Elena Buixaderas		*Untangling the intricate response of tetragonal tungsten bronzes*
Stanislav Kamba		*Multiferroic quantum criticality in (Eu,Ba,Sr)TiO3 system*
Joaquim Agostinho Moreira		*Can the Ferroelectric Soft Mode Trigger an Antiferromagnetic Phase Transition?*

MC_47: Exciton dynamics and transport in quantum materials II

Chairman: Alejandro Molina-Sanchez Room Fisica I

Antonio Picn	(Inv)	*Modelling attosecond x-ray spectroscopy studies*
Andrea Marini	(Inv)	*Coherence and populations in mixed classicalquantistic bosonic systems: a ManyBody perspective*
Ricardo Barbosa		*Excitonic Effects in Photocurrent Generation*
Umberto De Giovannini	(Inv)	*Excitons strongly coupled to light: from exciton-polaritons to core-exciton ultrafast dynamics*
Francisco Lobo Ribeiro		*Exciton properties in two-dimensional transition metal dichalcogenides*
Enrico Perfetto	(Inv)	*Dynamics of coherent excitons in resonantly driven semiconductors*

MC_46: Photodeformable polymer films: materials, methods, models, applications II

Chairman: Svetlana Santer Room Fisica L

Nina Tverdokhleb	(Inv)	*How to mimic and control the photoinduced deformations of glassy azopolymer films.*
Pasquale Pagliusi	(Inv)	*Vectorial interferometry for azopolymer films patterning*
Marcella Salvatore		*Photo-driven micropatterning technique for three-dimensional surface engineering*
Hao Zeng	(Inv)	*Photodeformable films fly in the sky*
Francesco Reda		*Maskless polymer photomorphing for reprogrammable flat optics*
Jaana Vapaavuori	(Inv)	*Light-responsive shape memory copolyamides steps towards textile robots capable of complex movements*

MC_01: The G-quadruplexes, beyond biology

Chairman: Alessandro Paciaroni Room 26.0.1

Lea Spindler	(Inv)	*Self-assembly of d(G4C2)n DNA sequences: from G-quadruplexes to liquid crystalline phases*
Jussara Amato	(Inv)	*Studying G-quadruplex nucleic acid structures and their drug targeting by biophysical methods*
Lucia Comez	(Inv)	*Human Telomeric G-quadruplexes in aqueous solutions: Structural and thermodynamic results in native and drug-complexed samples*
Alessia Pepe		*Beyond the FRAP analysis: modulating the solute diffusivity in G-hydrogels.*
Donato Calabria		*A Guanosine-Derived Supramolecular Hydrogel with DNAzyme like peroxidase activity as a new tool for hydrogen peroxide quantification*
Luca Nardo		*Ends matter: double-stranded flanking ends interfere with the folding dynamics of G-quadruplexes in the KIT oncogene promoter.*
Paolo Moretti		*Nanogels from Guanosine Hydrogels: A new drug delivery tool?*
Valeria Cassina		*Nanomechanics of the oncogenic G-quadruplex c-kit promoter*

MC_03: Data driven versus coarse-grained approaches in protein folding: where are we and where are we going? I

Chairman: Tatjana Skrbic Room 26.0.2

Guido Tiana	(Inv)	*Data-driven simulations of protein dynamics*
Carlo Camilloni	(Inv)	*multi-eGO: a simplified model to study protein folding, misfolding and aggregation*
Roberto Covino	(Inv)	*Investigating mechanisms of biomolecular selforganization by integrating physicsbased simulations and AI*
Ivan Coluzza	(Inv)	*Opening the path to new (bio)medical approaches and strategies with Protein-Inspired Nanoparticles*

MC_22: Driven amorphous solids: linking microscopic structure and dynamics to mechanical properties I

Chairman: Luca Cipelletti Room 26.0.3

Thibaut Divoux	(Inv)	*Precursors to failure in colloidal gels: a (biased) literature survey*
Nicholas Orr		*Photon correlation imaging of polymer network fracture*

Magali Le Goff		*Numerical study of the deformation and fracture of multiple polymer networks*
Matthias Merkel	(Inv)	*Generic elasticity of thermal, under-constrained systems*
Carmine Anzivino		*Optimizing the rheology of dense non-Brownian suspensions by tuning particle shape*
Laurence Ramos		*Beads of colloidal gel under compression*

MC_15: Hybrid quantum simulators for condensed matter physics problems I

Chairman: Massimo Capone Room 26.0.4

Leonardo Fallani	(Inv)	*Strongly interacting lattice fermions: flavour-dependent Mott localization and universal Hall response*
Guido Pupillo	(Inv)	*Semilocalization of disordered spins in cavity QED*
Dante Kennes	(Inv)	*Moir heterostructures: a condensed matter quantum simulator*
Juan Polo		*Fractional angular momentum quantization in Atomtronic circuits*
Giovanni Sordi		*Quantum and classical correlations in the two-dimensional doped Hubbard model*
Alessio Ciamei		*Fermi-Fermi mixtures of ultracold Li and Cr: a novel platform for quantum simulations*
Samuele Giuli		*Mott Enhanced Exciton Condensation*
Daniele Guerci		*Heavy fermions and superconductivity in heterobilayer TMDs*

MC_25: Design, synthesis and applications of novel 2D and 1D carbon materials IV

Chairman: Meike Stöhr Room 26.1.1

Michael Gottfried	(Inv)	*Beyond Graphene: On-Surface Synthesis Unlocks New Low-Dimensional Carbon Allotropes*
Chenxiao Zhao		*Atomic-level engineering of nanographene-based low-dimensional spin systems*
Gianluca Serra		*A graph-theoretical model for the bandgap of molecular graphenes*
Mario Italo Trioni		*Stability and electronic properties of graphene nanoflakes*
Paula Angulo Portugal		*Tuning the diradical character of pentacene derivatives via non-benzenoid coupling motifs*
Nicolo' Bassi		*Strong exchange interactions between open-shell nanographenes and a rare earth-gold surface alloy*
Marco Lozano Lozano		*Suppressing Peierls transition by topological protection in nanographene-polyacetylene complexes.*

Jan Berger		*On-surface and tip induced synthesis of carbon-based macrocycle polyradicaloids*

MC_08: Complexity in quantum matter

Chairman: Stefano Bonetti Room 26.1.2

Guido Caldarelli	(Inv)	*Network mapping of chemical space*
Ilaria Maccari	(Inv)	*Emergence of a fermion-quadrupling condensate spontaneously breaking time-reversal symmetry in multicomponent superconductors*
Nicol Defenu	(Inv)	*Long-range interacting quantum systems*
Alessandra Lanzara	(Inv)	*From excitons to topological excitons and their fingerprints on the electronic bandstructure*

MC_37: Nanomechanical and electromechanical systems III

Chairman: Eva Weig Room 26.1.3

Ivan Favero	(Inv)	*Optomechanical measurement of individual nano-objects*
Simone Felicetti	(Inv)	*Critical Parametric Quantum Sensing*
Ewa Rej		*Towards gravity detection using optomechanics with mass-loaded resonators*
Louise Banniard		*Fast feedback control of mechanical motion using circuit optomechanics*

MC_58: Molecularly functionalized low-dimensional systems I

Chairman: Sofie Cambré Room 26.1.4

Silvio Osella	(Inv)	*Lighting-up nanocarbons through hybridization: Optoelectronic properties and perspectives*
Michal Langer		*Communication of Molecular Fluorophores with Other Photoluminescence Centres in Carbon Dots*
Maider Ormaza		*Tuning the magnetic properties of layered materials through organic ion intercalation*
Mikoaj Lewandowski	(Inv)	*Development of SARS-CoV-2 Virus-Like Particles*

MC_10: Two-dimensional excitonic insulators IV

Chairman: Elisa Molinari Room 26.1.5

Chenhao Jin	*Correlated insulator of excitons in semiconducting moir superlattices*
Lorenzo Del Re	*Correlated phases in AB-stacked twisted TMD bilayers*
Sufei Shi	*Excitonic insulator in a Bilayer WSe2/monolayer WS2 moir superlattice*
Ivan Amelio	*Polaron spectroscopy of a bilayer excitonic insulator*

Adriano Amaricci		*Strongly correlated exciton-polarons in twisted homobilayer of transition metal dichalcogenides*
Fulvio Paleari		*Bulk MoS2 under pressure as an excitonic insulator*
Benjamin Remez		*Theory of Disordered Excitonic Insulators*
Discussion II	(Inv)	*Discussion II*

MC_49: Italian plasma physics III

Chairman: Daniela Farina Room 26.1.6

Marta Galbiati	(Inv)	*Theoretical investigations of laser-plasma interaction with low-density nanostructured targets at PoliMi*
Silvia Perri	(Inv)	*Flat particle energy spectra upstream of interplanetary shock waves*
Domenico Bruno	(Inv)	*Rotational and vibrational temperatures of Hydrogen nonequilibrium plasmas from Fulcher band emission spectra*
Andrea Mignone		*Astrophysical Plasma through Magnetohydrodynamics Computations*
Dario Borgogno		*Plasmoids and Kelvin-Helmoltz vortices in collisionless turbulent plasmas*
Mattia Cipriani		*High-power laser interaction with micro-structured materials for inertial confinement fusion*
Debabrata Banerjee		*Stability characteristics of axi-symmetric modes in magnetic fusion plasma*

MC_07: Economic fitness and complexity

Chairman: Luciano Pietronero Room 25.1.1

Matteo Marsili	(Inv)	*Simplicity Science*
Luciano Pietronero		*Economic Fitness: Concepts, Methods and Applications*
Aurelio Patelli		*Fitness - Complexity through the lens of Optimal Transport*
Angelica Sbardella		*Economic Fitness, technological capabilities and green opportunities*
Andrea Tacchella		*Relatedness in the Era of Machine Learning*
Giambattista Albora		*Machine learning to assess relatedness: the advantage of using firm-level data*
Dario Mazzilli		*Revealing comparative advantage*

MC_40: Halide perovskites advances, new challenges and perspectives I

Chairman: Juan Martinez Pastor Room 25.1.2

Quinten A. Akkerman	(Inv)	*Synthesis and Excitons of Spheroidal Perovskite Quantum Dots*

Federico Grandi		*Improved mixed halide perovskites photostability by Polymer-Mediated Crystallization*
Isabella Poli		*Defects and Degradation in Tin Halide Perovskites*
Pietro Anzini		*Study of the stability upon dilution of caesium lead halide perovskite nanocrystal suspensions through spectroscopic and light scattering techniques*
Daniele Cortecchia	(Inv)	*Synthetic design of low-dimensional perovskites for photonic applications*
Giulia Folpini		*Designing Ytterbium-doped perovskite near-IR emitters*
Sana Khan		*CsPbBr3/CsPbBr3xClx Core-Shell Perovskite Nanocubes for Low-Threshold Lasing Applications*
Juan Bisquert	(Inv)	*Advances In Kinetics Processes Of Halide Perovskite Solar Cells By Neuron-Style Nonlinear Model Equations And Electrooptical Techniques*

MC_41: Heat transport in solids I

Chairman: Dario Narducci Room 25.1.3

Begoa Abad	(Inv)	*Thermal transport from nanoscale heat sources*
Sebastian Reparaz		*Observation of second sound in a rapidly varying temperature field in Ge*
Grazia Raciti		*Using ultrafast spectroscopy to study hydrodynamic heat transport in 2D materials*
Francesco Banfi	(Inv)	*Towards coherent control of heat transport on ultrashort and ultrafast time scales*
Francisco Rivadulla	(Inv)	*Active control of the thermal conductivity in solids and mesophases*
Antonio M. Mrquez Cruz		*Tunning the thermal conductivity of filled skutterudites by pressure*
Jos Batista		*Machine Learning Assisted Calculation Of Phonon Properties In Layered hBN*

MC_61: SMART - electron event III

Chairman: Giovanni Maria Vanacore Room 25.1.4

Mathieu Kociak	(Inv)	*Deciphering the fate of optical excitations with photons and electrons*
Vincenzo Grillo	(Inv)	*New ideas and applications in electron beam shaping*
Anthony Fitzpatrick	(Inv)	*Design of an ultrafast pulsed ponderomotive phase plate for cryo-electron tomography*
Amir H. Tavabi	(Inv)	*Electrostatic orbital angular momentum sorter applications for addressing materials science problems*

Alberto Tagliaferri	(Inv)	*Perspectives of ultrafast hyperspectral imaging in Scanning Electron Microscopy*
Paolo Rosi		*Overcoming the aberration-limit of a non-corrected Transmission Electron Microscope with computational ghost imaging*
Cameron Duncan		*Exploring a time-of-flight method for high coherence electron ghost imaging*

MC_48: New frontiers of organic electronics II

Chairman: Alberto Scaccabarozzi Room 25.1.5

Sara Mattiello	(Inv)	*Sustainable synthesis of conjugated organic materials in aqueous, interface rich microheterogeneous environment*
Jaime Martn	(Inv)	*Semi-Paracrystallinity in Semiconducting Polymers*
Nathan James Pataki		*A scalable solution-processed organic thermoelectric generator*
Stefano Pecorario		*Exploring Charge Transport in Solution-Processed OFETs Based on sp-Hybridized Cumulenic Carbon Wires*
Alessandro Luzio	(Inv)	*Green and edible electronics for future biosensor*
Giovanni Maria Matrone		*Organic Neuromorphic Spiking Circuits Sensory Coding and Neurotransmitter-Mediated Plasticity*

MC_17: Cavity-modified material properties III

Chairman: Michael Ruggenthaler Room 25.1.6

Timur Shegai	(Inv)	*Strong light-matter coupling: from transition metal dichalcogenides to Casimir self-assembly*
David Hagenmuller	(Inv)	*Strong light-matter coupling in disordered systems: multifractality and protected transport*
Discussion III		
Anatoly Obzhirov		*Low energy Hamiltonian for coupled electron-phonon-photon systems*
Christian Eckhardt		*Subwavelength field confinement to engineer electronic properties*
Osamah Sufyan		*Topology of the Haldane and Kane-Mele models coupled to quantum light*

MC_13: Tuning materials properties through controlled disorder II

Chairman: Dario Manara Room CIDiS 501

Daniel A. Chaney	(Inv)	*Diffuse x-ray scattering at the ESRF-ID28 beamline: Case studies of -UMo and -U3O8*
Christine Gueneau	(Inv)	*Disorder in actinide oxides*

Thierry Wiss	(Inv)	*Impact of alpha-damage and helium production on Heat Capacity of (U, Pu)O2*
Eric O'Quinn	(Inv)	*Structural Manipulation of Ceramic Materials via Extreme Conditions*
Andrea Trapletti		*Matrices for radioactive waste disposal: A structure investigation of Gd2(Ti1-xZrx)2O7 pyrochlores from nano- to micro-crystallites size*
Gianguido Baldinozzi		*Radiation response in systems with dual spatial length-scales: the case of mixed valence fluorites with oxygen excess bixbyite order.*
Maulik Patel		*Swift heavy ion induced differential sublattice response to radiation in -Sc4Hf3O12*

MC_56: Mesoscopic superconductivity and quantum circuits I

Chairman: Gianluigi Catelani Room CIDiS 502

Michael Stern	(Inv)	*Reproducibility and Gap Control of Superconducting Flux Qubits*
Marcelo Goffman	(Inv)	*The Fermio-bosonic qubit*
Balzs Gulcsi		*Smoking-gun signatures of non-Markovianity of a superconducting qubit*
Mohammed Alghadeer		*Improving Performance of Superconducting Quantum Circuits through Passivation of Air-Interfaces with Self-Assembled Monolayers*
Giampiero Marchegiani		*Temperature and Fraunhofer effects on the quasiparticle decoherence of superconducting qubits*
Kirill Dubovitskii		*Theory of quasiparticle-induced errors in Schroedinger cat qubits*
Paul Benedikt Fischer		*Nonequilibrium quasiparticle distribution in superconducting resonators*
Emanuele Dalla Torre		*Coherence properties of a spin in a squeezed resonator*

MC_32: Emerging properties in 2D magnetic materials: single and multilayered heterostructures II

Chairman: Giancarlo Panaccione Room CIDiS 503

Andrea Droghetti	(Inv)	*Exploring magnetic properties and electron correlation effects at hybrid interfaces*
Mattia Benini		*Interface-driven modifications of magnetic properties in Co/Molecule heterostructures*
Marco Marino		*Ab initio study of Fe-phthalocyanine adsorption on the antiferromagnetic NiO(001) surface*
Giovanni Maria Vinai	(Inv)	*Interfacial effects in PMN-PT/ferromagnetic heterostructures: the role of morphology and photostriction*
Yu Chen		*Ferromagnetism in Multi-orbital Quasi-Two-Dimensional Electron Gas at Asymmetric Oxide interfaces*

Egzona Neziri *Ferromagnetism on an atom-thick 2D-metal-organic framework*

MC_21: Fermi surface topological transitions: effects of interactions I

Chairman: Joseph Betouras Room CIDiS 504

Nicolas Regnault (Inv) *The age of topological material databases*

Sunghun Kim (Inv) *Two-dimensional pure electron liquid and phase transition*

Federico Mazzola (Inv) *Dynamics of the Charge Density Wave in a Kagome Metal with near-Fermi van-Hove singularities*

Carolina de Almeida Marques *Probing the electronic structure of the superconductor/spin liquid superlattice of 4Hb-TaS2*

Abhishek Maiti *Emergence of a Hidden Topological Insulator Phase in Hybrid Halide Perovskite*

Edwin Herrera Vasco (Inv) *Visualizing quantum well states at the surface of the heavy fermion superconductor URu2Si2.*

GS_09: Other low dimensional materials II

Chairman: Enrique Diez Room Fisica B

Carmem M. Gilardoni (Inv) *A single electronic spin in hBN with room-temperature spin coherence*

Matteo Amati *1D- and 2D-materials chemical characterization at the submicron scale with Scanning Photoemission Imaging and Spectromicroscopy*

Marta Galbiati *Monolayer-to-Mesoscale Modulation of the Optical Properties in 2D CrI3 Mapped by Hyperspectral Microscopy*

Michele Merano *The out-of-plane optical constant of a two-dimensional crystal: experimental observation of an elusive quantity*

Alessio Lamperti *Role of inorganic promoters in few-layer MoS2 grown by ambient pressure chemical vapor deposition*

Michele Capra *Growth and characterization of sharp, atomically flat graphene/oxide heterojunctions*

Pier Luigi Silvestrelli *Screening and antiscreening in fullerene-like cages: dipole-field amplification with ionic nanocages*

Ekaterina Tikhodeeva *Evolution of the Si-Au(110) interface: from the gold substrate to silicon nanoribbons*

Nuria Jimenez-Arevalo *MoS2 photo-electrodes for hydrogen production: tuning the S-vacancies content in highly homogeneous ultrathin nanoflakes*

GS_05: Strongly correlated electron systems IV

Chairman: Marco Moretti — Room: Fisica C

Luca Dell'Anna	(Inv)	*Topological order and dynamics in long-range Kitaev chains*
Ayushi Singhania		*Disorder effects in the Kitaev-Heisenberg model*
Carlos Mejuto Zaera		*Multi-orbital models within the ghost Gutzwiller approximation*
Massimo Capone		*Mott insulators coexisting and/or competing with polarons in strongly correlated materials*
Oleksandr V. Pylypovskyi		*Temperature-driven flexomagnetic effects in thin Cr2O3 films*
Yoav Kalcheim	(Inv)	*Navigating the Phase Diagram of V2O3 Thin Films Using Anisotropic Strain*
Ankush Girdhar		*Wigner crystallization in one-dimensional paramagnetic electron gases*
John Sous	(Inv)	*Bipolaronic high-temperature superconductivity*

MC_42: Ion beam induced morphological alteration of materials: experiments, theoretical models and simulations I

Chairman: Milena Majki? — Room: Fisica D

Christoph Lemell	(Inv)	*Nanopore formation in 2d materials*
Chris Ewels	(Inv)	*Bending and Flexing in Carbon and BN*
Ayoub Benmoumen		*Fine tuning 2D transition metal (MXene) thin films properties using ion irradiation*
Ilona Stabrawa	(Inv)	*Surface modification of metal nanolayers by highly charged xenon ions*
Przemysaw Jwik	(Inv)	*Analysis of ion beam-induced defects in crystals by ion channeling, Monte Carlo simulations, and Molecular Dynamics*

MC_14: Quantum gases as analogues of condensed matter systems III

Chairman: Luca Salasnich — Room: Fisica E

Carlos Sa de Melo	(Inv)	*Supersolid Phases of Dipolar and Spin-Orbit Coupled Bosons in Optical Lattices*
Patrizia Vignolo	(Inv)	*Spin-mixing dynamics in a strongly interacting one-dimensional Fermi gas*
Edmond Orignac	(Inv)	*Breathing mode of a dipolar quantum droplet and generalized Gross-Pitaevskii equation*
Serghei Klimin		*Collective excitations of neutral and charged Fermi superfluids and superconductors within the unified approach*

GS_15: Optics and photonics - nanophotonics and metamaterials I

Chairman: Silvia M. Pietralunga Room Fisica T

Silvia Romano	(Inv)	*Bound States in the Continuum: From Polarization Singularity to Enhanced Biosensing and Upconversion Emission*
Michele Gherardi		*Nanofabrication and optical characterizations of silicon chiral metasurfaces*
Eugene Bortchagovsky		*Plasmonic properties of ordered lattices of plasmonic nanoparticles probed by microellipsometry*
Cristina Mancarella		*Plasmonic Multilayer Metamaterials based on Nitrides, Oxy-nitrides and Transparent Conductors with Broad and Tunable Properties*
Javier Rodrguez-lvarez		*Antiferroelectric Dark Modes in an Inverted Plasmonic Lattice*
Lorenzo Ram		*Thermal scanning-probe lithography for broadband on-demand plasmonics on transparent substrates*
Hanan Ali		*Circular dichroism in plasmonic array of elliptical nanoholes with square lattice*
Matteo Corti		*Analysing Photonic Nanostructures by Means of a High-Throughput k-Space Hyperspectral Microscope*
Ludovico Giuseppe Barbata		*Optical properties of MOF-808 before and after Rhodamine B functionalization*

MC_47: Exciton dynamics and transport in quantum materials III

Chairman: Davide Sangalli Room Fisica I

Sivan Refaely-Abramson	(Inv)	*Excited-state processes in materials: from crystal structure to interaction dynamics*
Marco Bernardi	(Inv)	*Non-Equilibrium Dynamics of Coupled Electrons, Phonons, and Excitons from First Principles*
Selene Mor	(Inv)	*Coherent-phonon mediated modulation and time-resolved photoemission signature of an excitonic resonance in the layered semiconductor BiI3*
Valentina Gosetti		*Photoinduced coherent excitons and coherent-incoherent cross-over in BiI3 Single crystal*
Discussion	(Inv)	
Claudio Giannetti	(Inv)	*The fate of optical excitons in halide perovskite artificial solids*

MC_31: Quantum devices in twisted graphene layers II

Chairman: Marco Polini Room Fisica L

John Birkbeck	(Inv)	*The Quantum Twisting Microscope*

Elas Portols	(Inv)	*Superconducting Quantum Interference Device in Magic-Angle Twisted Bilayer Graphene*
Iacopo Torre	(Inv)	*Near-field study of twisted bilayer graphene from small angles to magic angle*
Szabolcs Csonka		*Tailoring the band structure of twisted double bilayer graphene with pressure*

MC_33: Novel 2D magnetic materials and heterostructures I

Chairman: José J. Baldoví Room 26.0.1

Jose Lado	(Inv)	*Artificial van der Waals multiferroics with twisted two-dimensional materials*
Marco Gibertini	(Inv)	*Expanding the portfolio of two-dimensional magnetic materials and their applications from first principles*
Gianni Profeta		*Polaronic and Mott insulating phase of layered magnetic vanadium trihalide VCl3*
Simona Achilli		*Single-atom magnetic doping of graphene and hBN*
Sourav Dey		*Exploring the electronic structure and magnetic properties of lanthanide-based 2D van der Waals materials*
Ali Esquembre Kucukalic		*Magnons in chromium trihalide monolayers: an ab initio approach*
Sushant Kumar Behera		*Nanoscale Electron Transport in Magnetic Proximitized Two-Dimensional van der Waals Quantum Systems*

GS_19: Quantum computation

Chairman: Marco Liscidini Room 26.0.2

Pietro Faccioli	*Quantum Encoding Enables Sampling Soft-Condensed Matter Systems that are Unfeasibly Hard for Conventional Monte Carlo*
Emanuele Dalla Torre	*Approximate encoding of quantum states using shallow circuits*
Leonardo Castelano	*Application of machine learning to extract physical parameters*
Fabio Chiarello	*Single microwave photon detection for Axion search: preliminary results*
Krzysztof Pomorski	*Universal modeling of electrostatic semiconductor quantum gates of any topology interfaced to Josephson junction quantum circuit*
Enrico Prati	*The quantum computing landscape: from materials to market*
Nicola Lo Gullo	*Enhancing qubit readout with Bayesian Learning*
Irene D'Amico	*Advantages of N-th root gates for few-qubit thermodynamic machines*

MC_22: Driven amorphous solids: linking microscopic structure and dynamics to mechanical properties II

Chairman: Kirsten Martens — Room 26.0.3

Costantino Creton	(Inv)	*long range elastic effcts of bond scission*
Laureano Ortellado		*Nanoprojectile impact on highly entangled polymeric thin film*
Stefano Aime		*Microscopic dynamics during flow startup and cessation in soft glasses*
Roberto Benzi	(Inv)	*Continuum Modelling of Soft Glass Materials*
Jasper Van Der Gucht	(Inv)	*Fracture of amorphous fiber networks: ductile or brittle?*

MC_15: Hybrid quantum simulators for condensed matter physics problems II

Chairman: Massimo Capone — Room 26.0.4

Giovanni Modugno	(Inv)	*Understanding the supersolid phase of matter with a dipolar quantum gas*
Iacopo Carusotto	(Inv)	*Non-equilibrium quantum many-body physics with quantum fluids of light*
Emanuele Dalla Torre		*Simulating long-range coherence of atoms and photons in quantum computers*
Giulia Del Pace		*Self-organization of strongly-correlated atomic Fermi gases with cavity-mediated long-range interactions*
Francesco Mattiotti		*Multifractality in the interacting disordered Tavis-Cummings model*
Francesco Perciavalle		*Controlled flow of excitations in a ring-shaped network of Rydberg atoms*
Enrico Domanti		*Coherence of confined matter in lattice gauge theories at the mesoscopic scale*
Giulio Biagioni		*Superfluid fraction of a supersolid from Josephson oscillations*

GS_13: Semiconductors

Chairman: Jacopo Frigerio — Room 26.1.2

Alberto Debernardi	*Engineering the insulator-to-metal transition by tuning the population of dopant defects: first principles simulations of Chalcogen hyperdoped Si*
Friedhelm Bechstedt	*Hexagonal SiGe alloys: Bands and optical transitions*
George Ridgard	*Cryogenic Threshold Engineering for Ultra low voltage CryoCMOS*

Valentina Carpenella		*High-Pressure Behavior of Phase of Formamidinium Lead Iodide studied by Raman and Photoluminescence spectroscopy*
Nicola Dengo		*Dealing with structural complexity in CdSe QDs: a SAXS/WAXS Total Scattering approach*
Michele Amato		*Extrinsic Doping in Hexagonal-Diamond Type Crystals*
Stefano Vichi		*Enhancing intermediate band solar cell performances through quantum engineering of dot states by droplet epitaxy*

MC_37: Nanomechanical and electromechanical systems IV

Chairman: Elke Scheer Room 26.1.3

Andrew Cleland	(Inv)	*Developing a linear mechanical quantum computing platform*
Birgit Stiller	(Inv)	*Waveguide optoacoustics*
Nils Johan Engelsen	(Inv)	*Ultralow dissipation mechanical resonators for sensing and optomechanics*
Kyrylo Gerashchenko		*Quantum control of an ultracoherent mechanical resonator with a fluxonium qubit*

GS_24: Photonics for cultural heritage I

Chairman: Daniela Comelli Room 26.1.4

Claudia Conti	(Inv)	*Deep Raman in Heritage Science: micro-SORS advancements*
Nicol Guarnieri		*Preserving colours of Urban Art Paintings: colour stability and degradation mechanisms of Ubuntu mural in Milan*
Chiara Delledonne		*Understanding the Beethovens creative process by analysing the ink. The non-invasive campaign on the manuscript sketchbook held at the Angelo Mai Civic Library (Bergamo, Italy)*
Alice Dal Fovo		*Reflectance spectroscopy as a novel tool for thickness measurements of painting layers*
Chiara Andrea Lombardi		*Preliminary analyses on the characterisation of malacofauna pigments*
Letizia Berti		*Multimodal Hyperspectral Imaging for the study of cyanobacterial sub-aerial biofilm on carbonatic stones.*
Austin Nevin	(Inv)	*Photonics for Heritage: Case studies of Easel and Wall Painting Conservation*

MC_57: Microscopic investigation of the solid/liquid interface I

Chairman: Marek Nowicki Room 26.1.5

Christopher Kley	(Inv)	*Revealing Nanoscale Properties of Electrocatalysts by In Situ Atomic Force Microscopy*

Tomasz Kosmala	(Inv)	*Uncovering active sites and enhancing catalytic activity in 2D materials for hydrogen evolution reaction*
Filipe Matusalem		*Understanding water metal interfaces using neural-network trained force fields*
Menghao Yang		*Interfacial Atomistic Mechanisms of Lithium Metal Stripping and Plating in Solid-State Batteries*
Gianlorenzo Bussetti		*Atomic force microscopy and Raman spectroscopy combined to in-situ and real time investigation of graphite anion intercalation*
ANDREA Cerreta		*Measuring Local Electrochemical Properties of Thin Films and 2D Materials by means of Scanning Electrochemistry Cell Microscopy*

MC_49: Italian plasma physics IV

Chairman: Fulvio Zonca Room 26.1.6

Simone Landi	(Inv)	*Models and numerical simulations of Space and Astrophysical plasmas in Arcetri*
Piero Martin	(Inv)	*Physics basis of the Divertor Tokamak Test Facility*
Giovanni Lapenta	(Inv)	*TerraVirtualE: ERC-AdG for Planetary space simulations based on the particle description for electrons and ions.*
Massimo Nocente		*Recent applications of the three-ion radio frequency heating schemes for fast ion generation and fuel ion heating in tokamak plasmas*
Gabriele Celebre		*The phase space dynamics of the Vlasov-Poisson system: collisionless and collisional regimes*
Martina Salvadori		*External beam laser-driven PIXE*
Paolo Pagano		*Nanojets and nanoflares in the solar corona*
Massimiliano Rom		*Simulation of the dynamics of a non-neutral plasma in a Penning-Malmberg trap by means of a 3D PIC code*

GS_17: Optics and photonics - ultrafast and optical spectroscopy

Chairman: Caterina Vozzi Room 25.1.1

Francesca Calegari	(Inv)	*Electron-driven ultrafast chiroptical switching*
Giacomo Inzani		*Attosecond field-driven photoinjection in germanium*
Gian Luca Dolso		*Attosecond Virtual-Carrier Dynamics in Monocrystalline Diamond*
Francesca Intonti	(Inv)	*Light localization in correlated disorder materials*
Andrea Iudica		*Real-time observation of coherent vibrational dynamics in TiN films*
Andrea Annunziata		*High-order Harmonic Generation in Condensed Media*

Antonello Andreone		*Multi-color spectroscopy, cutting-edge optical technologies, and advanced imaging applications in the Terahertz/Far-IR Range with the future Superconducting Electron Source BriXSinO*

MC_40: Halide perovskites advances, new challenges and perspectives II

Chairman: Daniele Cortecchia — Room 25.1.2

Micha Baranowski	(Inv)	*Excitons in perovskites an old quasiparticle at the new playground*
Christophe Testelin	(Inv)	*Exciton fine structure in halide perovskite nanostructure : role of dielectric effects and shape anisotropy*
Juan P. Martnez-Pastor	(Inv)	*Tin-based perovskites for optoelectronic and photonic devices*
Laurent Legrand		*Excitonic emission of a single CsPbCl3 nanocrystal*
Federico Fabrizi		*Room-temperature Distributed Feedback FAPbBr3 Perovskite Nanocrystal Laser Integrated on Silicon Nitride Waveguide Platform*
Jialiang Xu		*Chiral Perovskites for Second-Order Nonlinear Optics*
Svetlana Siprova		*Purcell Effect in CsPbBr3/Cs4PbBr6 Perovskite Nanocrystyals Based Hyperbolic Metamaterials*

MC_41: Heat transport in solids II

Chairman: Ilaria Nardo — Room 25.1.3

Patrizio Graziosi	(Inv)	*Electronic heat transport: simulation and impact in thermoelectric semiconductors*
Alos Castellano		*Mode-coupling theory of anharmonic lattice dynamics for thermal transport in solids*
Antonio Cappai		*Anomalous thermal transport in Cs2NaYbCl6 driven by fourth order anaharmonicity*
Virginia Carnevali	(Inv)	*Microscopic rules designed for thermal and electronic transport: lone pair rotation, bond heterogeneity*
Valentina Giordano	(Inv)	*Thermal relaxation and phonon lifetime in a nanophononic SiN suspended membrane*
Lisa Mitterhuber		*Complementary usage of SThM and TDTR for extracting thermal properties*
Sebastian Reparaz		*Determination of the In-plane Thermal Diffusivity Using Beam-Offset Frequency-Domain Thermoreflectance with a One-Dimensional Optical Heat Source*
Alessandro Casto		*Experimental determination of the Thermal Boundary Resistance at the Carbon Nanotubes - water interface*

MC_38: New perspectives in electron microscopy for condensed matter Physics I

Chairman: Alberto Tagliaferri Room 25.1.4

Sonia Conesa-Boj	(Inv)	*Probing 2D Materials with Machine Learning-Assisted Electron Microscopy*
Regina Ciancio	(Inv)	*Correlative workflows to probe oxygen vacancies in functional oxides: from atomic site HAADF-STEM/EELS to synchrotron-based spectroscopies*
Giuseppe Nicotra	(Inv)	*Challenges beyond the nanoscale, and the BeyondNano centre of microscopy and spectroscopy at IMM-CNR*
Amir H. Tavabi	(Inv)	*Operando TEM study of all-solid-state battery interfaces with and withou anode coating*
Giovanni Maria Vanacore	(Inv)	*Coherent manipulation of free electrons via quantum interaction with shaped optical fields and its application to enhanced imaging*
Floriana Morabito		*Novel multimodal approaches for the study of ultrafast phenomena in bidimensional semiconductors*

MC_58: Molecularly functionalized low-dimensional systems II

Chairman: Silvio Osella Room 25.1.5

Cinzia Casiraghi	(Inv)	*Water-based, defect-free and biocompatible 2D material inks enabled by supramolecular chemistry*
Sofie Cambre	(Inv)	*Chirality-dependence of triplet excitons in (6,5) and (7,5) SWCNTs revealed by optically-detected magnetic resonance*
Paul Peter Debes		*Experimental and Theoretical Insights into the Accessibility of Functional Groups in Bottom-up Carbon Nanodots*
Alphonse Fiebor		*Charge Transfer Agents on Single Walled Carbon Nanotubes via Controlled Nondestructive Covalent Functionalization*
Francesco Scotognella	(Inv)	*Doped semiconductor nanocrystals for ultrafast photonics and solar energy*
Alessandro Kovtun		*Using blue light for covalent pattering of graphene: a new approach for realization of microarray sensors*

MC_30: Femtosecond photoemission spectroscopy in charge ordered materials I

Chairman: Kai Rossnagel Room 25.1.6

Kai Rossnagel	(Inv)	*Ultrafast Unordering of Electronic Order*
Jure Demsar	(Inv)	*Collective modes in Charge-density-waves probed by femtosecond optical spectroscopy.*
Michele Puppin		*Inducing a Weyl semiconductor-to-metal transition in Tellurium*

Jesumony Jayabalan		*Femtosecond Photoemission Spectroscopy in doped 1T-TaS2 Charge Ordered Materials*
Tanusree Saha		*Uncovering the nature of transient and metastable nonequilibrium phases in 1T-TaS2*
federico mazzola		*Dynamics of the Charge Density Wave in a Bilayer Kagome Metal*
Davide Campi		*High-throughput identification of 2D of materials exhibiting charge density wave transitions*

MC_13: Tuning materials properties through controlled disorder III

Chairman: Katharina Lorenz — Room CIDiS 501

Miguel Sequeira	(Inv)	*Understanding Radiation Damage in Nitride-Based Devices*
Riccardo Frisenda	(Inv)	*The role of traps in the photocurrent generation mechanism in thin InSe multifunctional devices*
Anna Mackov	(Inv)	*Ion beam modification of graphene based materials and novel polymers for flexible electronics, sensorics and bioapplication*
Daniela Pereira	(Inv)	*Enhanced electrical conductivity on H- and O-implanted orthorhombic MoO3*

MC_56: Mesoscopic superconductivity and quantum circuits II

Chairman: Elisabetta Paladino — Room CIDiS 502

Giovanna Tancredi	(Inv)	*Qubit readout fidelity at the threshold for quantum error correction withou a quantum-limited amplifier*
Giuseppe Falci	(Inv)	*Detecting virtual photons in superconducting quantum circuits*
Victor Petrashov	(Inv)	*Hybrid Ferromagnetic/Superconducting Quantum Interference Devices*
Federica Mantegazzini		*Superconducting high kinetic inductance films for quantum circuits*
Claudio Guarcello		*Study of the performance and nonlinear dynamics of a Josephson travelling-wave parametric amplifier*
Giovanni Filatrella		*Theoretical and Numerical Estimate of Signal-to-Noise-Ratio in the Analysis of Josephson Junctions Lifetime for Photon Detection*
Emil Rizvanov		*Numerical simulation of Josephson traveling-wave parametric amplifier*

MC_43: Nanodevice iontronics I

Chairman: Francesco Rossella — Room CIDiS 503

Fabio Cicoira	(Inv)	*Conducting polymers for stretchable and healable electronics*
Shimpei Ono	(Inv)	*Advanced functionalities of ions exploiting their cross-correlation energies*
Claudio Fontanesi	(Inv)	*On a novel electrochemical transistor*

Juan Ignazio Beltran	(Inv)	*Crystal symmetry dependence of the electronic and ionic properties of SrIrO3 thin films: the effect of an external electric-field*
Alessia Colosimo		*Heat Driven Iontronic Nanotransistors*
Domenic Prete		*Ion gating in broken gap heterojunction based on Catalyst-Free InAs/GaSb CoreShell Nanowires*
Valeria Demontis		*Ambipolar electrical transport in metal-oxide core-shell nanowire heterostructures unveiled with ionic liquid gating*

MC_24: Xenes: two-dimensional synthetic materials beyond graphene

Chairman: Carlo Grazianetti — Room CIDiS 504

Harold J.W. Zandvliet	(Inv)	*Electric field induced topological phase transition and quantum spin Hall effect in germanene*
Guy Le Lay	(Inv)	*Spin-polarized Majorana zero modes in penta-silicene nanoribbons*
Alberto Verdini		*Red or Black Phosphorus Yield the Same Blue*
Daniele Nazzari		*Epitaxial growth of crystalline CaF2 on silicene by molecular beam epitaxy*
Alberto Debernardi		*Two dimensional Lateral X-ene Heterostructures (X=Si,Ge,Sn) for Innovative Topological Devices*
Chiara Massetti		*Bendable Xenes-based membranes*
Simone Grillo		*Non-Trivial Excitonic Fingerprints and Optical Anisotropy of 2D Tellurium*
Guido Fratesi		*Crystal Phase Engineering of Silicene by Sn-modified Ag(111)*

GS_06: Structure and dynamics of solids

Chairman: Gabriella De Luca — Room Fisica B

Stefano Lupi	(Inv)	*Charge Dynamics in Complex Solids*
Sandro Scandolo	(Inv)	*Iron at Earth's core conditions from deep-learning simulations*
Valerio Peri		*Quantum spin liquids under the quantum twisting microscope*
Gregor Jotzu		*Ultrafast magnetometry of (light-induced) superconductors*
Kamil Tokr		*Computational investigation of polymorphism, dynamical properties and charge ordering mechanism in silver difluoride system*
Dario Baratella		*Unraveling the crystallization kinetics of Ge-rich GexTe phase change alloys with a machine-learned interatomic potential*
Mariana Derzsi		*Phase stability of PdO2: The role of temperature and electron correlations*

GS_02: Biophysics I

Chairman: Maddalena Collini — Room: Fisica C

Francesco Spinozzi	(Inv)	*Advanced strategies for the interpretation of SAXS and SANS data of biological systems*
Eleonora Secchi	(Inv)	*Flow-driven biofilm assembly and dynamics in porous systems*
Ornella Cavalleri		*A sensing functional interface for multiplexing oligonucleotide detection*
Andrea Gamba		*Optimality in self-organized molecular sorting*
Giuliano Zanchetta		*At the core of biology: sequence and secondary structure tune the liquid-liquid phase separation of ribosomal nucleic acids and polypeptides*
Annalisa D'Arco		*Infrared optical ultrasensitive biosensor based on TiO2 nanostructured array*
Alessio Meggiolaro		*Development and validation of a droplet microfluidic platform for extracellular vesicle isolation devoted to cancer diagnosis*
Davide Bochicchio		*Amphiphilic Au nanoparticles and cholesterol-containing liposomes serving as minimal tunable fusion machinery*
Giorgia Brosio		*Towards the design of fusogenic nanoparticles: nanoparticle-induced stalk formation and pore opening*

GS_12: Computational methods for materials design I

Chairman: Roberto Sant — Room: Fisica D

Stefano Pittalis		*Progress in ensemble density functional theory for excited states*
Luca Bursi		*First principles characterization of defect states in emerging materials for next-generation technology*
Robin Hilgers		*Magnetic Multilayers: From High-Throughput Ab-initio Calculations to Predictive Machine Learning*
Victor Posligua		*Unraveling the role of chemical composition in the thermal transport properties of I-III-VI2 Chalcopyrite Semiconductors*
Liudmila Bereznikova		*Application of machine learning methods for calculating optical materials properties*

MC_21: Fermi surface topological transitions: effects of interactions II

Chairman: Antonio Vecchione — Room: Fisica E

Anna Tamai	(Inv)	*The fate of quasiparticles at the Lifshitz transition in Sr2RuO4 under uniaxial strain*
Phil King	(Inv)	*ARPES studies of uniaxial stres-driven Lifshitz transitions in Sr2RuO4*
Maximilian Pelly		*Exploiting symmetry-adapted distortion tuning for electronic singularity engineering in Ba doped Sr3Ru2O7*

Hilary Noad		*Giant lattice softening at a Lifshitz transition in Sr2RuO4*
Anirudh Chandrasekaran	(Inv)	*Engineering higher order singularities in the ruthenates - a theoretical perspective*

MC_48: New frontiers of organic electronics III

Chairman: Simone Fabiano Room Fisica T

Laura M. Ferrari	(Inv)	*Conformable cutaneous tattoo electrodes*
Tommaso Nicolini		*Tuning the redox properties of a conducting polymer for OECT-based Zn sensing: from template to target.*
Lucia Sarcina		*Early detection of pancreatic-biliary cancer markers with a bioelectronic sensor*
Giorgio Ernesto Bonacchini	(Inv)	*New opportunities for organic electronic materials in microwave metadevices*
Cecilia Scandurra		*Label-free and single-molecule detection of Sars-CoV 2 subgenomic mRNAs*
Cristiano Bortolotti		*Glucose Biosensor based on Printed Flexible Extended Gate SWCNTs Electrolyte-Gated Transistors*
Hendrik Faber	(Inv)	*Fabrication of nanogap electronics via Adhesion lithography*

MC_59: Molecules at surfaces III

Chairman: M.Lewandowski Room Fisica I

M. Alexander Schneider	(Inv)	*Porphyrins on Copper and Cobalt Oxide Surfaces: Adsorption, chiral self-assemblies, and self-metalation reactions*
Sergio Tosoni	(Inv)	*Functionalization of metal and metal oxide surfaces with heterocyclic molecules: a DFT study*
Luca Artiglia	(Inv)	*In situ photoelectron spectroscopy studies of the structure-activity relationship*
Joris de la Rie		*Porphyrin-based metal-organic coordination networks on graphene vs. Au(111): a photoelectron spectroscopy study*
Luca Vattuone		*Reactions under graphene cover on Ni(111)*
Luca Floreano		*TiO2-TPP / TiO-TPP conversion at the r-TiO2 surface by capture of diffusing oxygen atom*

MC_33: Novel 2D magnetic materials and heterostructures II

Chairman: Alberto Brambilla Room 26.0.1

Mirko Cinchetti	(Inv)	*A combined magneto-optical and ARPES study on interfaces between van der Waals antiferromagnets and molecular systems*
Kezilebieke Shawulienu	(Inv)	*Topological superconductivity in van der Waals heterostructures*
Marco Gobbi	(Inv)	*Local control of superconductivity in a NbSe2/CrSBr van der Waals heterostructure*
Elena Molteni		*Tuning the magnetic properties of antiferromagnetic oxides via adsorption of organic molecules: pentacene on NiO(001)*
Andrey Matetskiy		*Interplay between magnetic order and electronic band structure in ultrathin gadolinium germanide films.*
Sara Fiori		*Tailoring metal/oxide interface through Graphene intralayer*

MC_03: Data driven versus coarse-grained approaches in protein folding: where are we and where are we going? II

Chairman: Tatjana Skrbic Room 26.0.2

Pietro Faccioli	(Inv)	*Transition path sampling on a quantum computer*
Raffaello Potestio	(Inv)	*Folding self-entangled proteins via high-throughput, computationally inexpensive coarse-grained models*
Antonio Trovato	(Inv)	*Folding kinetics of an entangled protein*
Jayanth R. Banavar	(Inv)	*A theoretical framework for understanding proteins*

MC_19: Effective theories for condensed matter

Chairman: Andrea Amoretti Room 26.0.3

Daniel Brattan	(Inv)	*Relaxed hydrodynamics*
Anton Souslov	(Inv)	*Active Solids*
Koenraad Schalm	(Inv)	*T-linear resistivity, optical conductivity and Planckian transport for a holographic local quantum critical metal in a periodic potential*
Francisco Pena-Benitez	(Inv)	*Low energy description of Fracton phases*
Alessio Caddeo		*MDMA algebra, fractons and dipole symmetry breaking*

Ioannis Matthaiakakis		*Destroying Superconductivity with an electric field*
Francesco Lorenzi		*Effective interaction potential of ultracold quantum gases: nonuniversal aspects*
Joseph Poata		*Features and occurrence of 2D second-order topological insulator zero-energy states*
Luca Martinoia		*On Frames and Magneto-Transport in Anomalous Hydrodynamics*

MC_15: Hybrid quantum simulators for condensed matter physics problems III

Chairman: Claudio Giannetti — Room 26.0.4

Giulia Grancini	(Inv)	*2D Hybrid Perovskite Quantum Wells for Optoelectronics*
Dario Ballarini	(Inv)	*2D Quantum Turbulence in a fluid of light*
Lilia Boeri	(Inv)	*Open Problems in Superconductivity*
Alessandra Milloch		*Halide perovskite artificial solids as a new platform to simulate collective phenomena in doped Mott insulators*
Giuseppe Luca Celardo		*Cooperative Shielding in long range interacting systems: localization and information spreading.*
Anna Berti		*Realizing superfluid ferromagnets with coherently coupled BEC mixtures*
Wayne Jordan Chetcuti		*Interference dynamics of matter-waves of SU(N) fermions*
Umberto Filippi		*Color and structure tunability in Perovskite Nanocrystal Superlattices*
Matteo Ferraretto		*Enhancement of chiral edge currents in (d+1)-dimensional atomic Mott-band hybrid insulators*

GS_21: Superconductivity materials and phenomena I

Chairman: Gianni Profeta — Room 26.1.2

Erik Piatti	(Inv)	*Induced superconductivity and coexisting charge-density wave in hydrogen-doped titanium diselenide via ionic gate-driven protonation*
Piotr Sobota		*Superconductivity in the high-entropy alloy (NbTa)0.67(MoHfW)0.33*
Fabian Sigloch		*Recent advances in the nanofabrication of W-based SQUIDs by means of Ga+ FIBID*
Amaia Senz		*Optimization on cantilevers of tungsten-based superconducting deposits by Focused Ion Beam Induced Deposition*
Francesco Rosa		*Infinite-layer nickelate superconductors studied with Resonant Inelastic X-ray Scattering*
Martando Rath		*X-ray photoelectron spectroscopy study of infinite-layer nickelate thin films*

Alex Hayat		*Semiconductor-Superconductor Optoelectronic Devices*
Anand Manaparambil		*Underscreened Kondo cloud in superconductor*
Davide Filippo Valentinis		*Fermi-liquid to non-Fermi liquid crossovers in the superconducting Yukawa-SYK model on a lattice*

MC_55: Magnet/superconductor hybrids for quantum information science and technology I

Chairman: Roberto Lo Conte Room 26.1.3

Juan Carlos Cuevas	(Inv)	*Microwave Excitation of Atomic Scale Superconducting Bound States*
David Christian Ohnmacht		*Full Counting Statistics of Yu-Shiba-Rusinov Bound States*
Levente Rzsa		*Yu-Shiba-Rusinov states in spin chains on superconductors*
Jens Wiebe	(Inv)	*Proximity superconductivity in atom-by-atom crafted quantum dots*
Jon Ortuzar Andres		*Theory of a Single Magnetic Impurity on a Thin Metal Film in Proximity to a Superconductor*
Stefano Trivini		*Cooper Pair Excitation Mediated by a Molecular Quantum Spin on a Superconducting Proximitized Gold Film*
Tristan Cren	(Inv)	*STS investigation of odd-frequency pairing induced by a magnetic impurity*
Katerina Vaxevani		*Extending the spin excitation lifetime of a magnetic molecule on a proximitized superconductor*

GS_24: Photonics for cultural heritage II

Chairman: Alessia Candeo Room 26.1.4

Federica Pozzi	(Inv)	*The multifaceted role of conservation science in times of compelling changes: challenges and successes at the Centro Conservazione Restauro La Venaria Reale*
Benedetto Ardini		*Multi-scalar and multi-modal imaging of complex artworks with a novel widefield hyperspectral system*
Serena Benelli		*The Gallone Samples Archive: a resource for Cultural Heritage studies*
Alessia Di Benedetto		*A multi-modal approach combining Raman and photoluminescence microscopy.*
Margherita Longoni		*Visible-induced microspectrofluorimetry the non-invasive in situ identification of dyes in illuminated manuscripts: advantages of multivariate analysis and 3D-fluorescence*

GS_22: Surfaces and interfaces I

Chairman: Alberto Morgante Room 26.1.5

Willi Auwrter	(Inv)	*On-Surface Reactions with Porphyrins*
Luca Schio		*Unique adsorption configuration of M(II)-tetraphenylporphyrins (M = Co, Ni, Cu, Zn) on the r-TiO2(110) surface*
Roberto Flammini		*Sb and Pb overlayers on Bi2Se3: interface formation and localization of the topological surface state*
Stefano Veronesi		*Deterministic organic functionalization of exfoliated monolayer graphene via high-resolution surface engineering*
Raul Bombin Escudero)		*Vibrational dynamics of CO on Pd(111)*
Cristian Soncini		*Surface Photovoltage in Hybrid Heterojunctions*
Giorgio Benedek		*First-Principle Dynamics of Radon Overlayers on Metal Surfaces*
Enrico Lavagna		*Amphiphilic nanoparticles aggregation on lipid membranes*
Oreste De Luca		*New insights in polydopamine formation via surface adsorption*
Pierpaolo Vecchi		*Effects of Cobalt and Iron-Based Inorganic Catalysts on the Excited State Dynamics of WO3/BiVO4 Photoanodes*

MC_49: Italian plasma physics V

Chairman: Silvia Perri Room 26.1.6

Poster Session	(Inv)	*Poster Session*
Round Table	(Inv)	*Round Table*

MC_04: Mechanobiology of cell division and transport I

Chairman: Jean-François Berret Room 25.1.1

Vladimir Volkov	(Inv)	*Reconstitution of cooperativity and force transmission at the kinetochore-microtubule interface*
Stefanie Redemann	(Inv)	*The Chromokinesin KLP-19 affects microtubule dynamics and shifts the force balance during mitosis*
Stefano Santaguida	(Inv)	*Mechanistic insights into the consequences of chromosome segregation errors on cell physiology*
Lucija Tomai		*Proliferative advantage of specific aneuploid cells drives evolution of tumor karyotypes*
Maryam Kohram		*Predicting cytokinesis failure in epithelial cells*

MC_18: Unconventional light-matter interactions: ultrastrong/parametric couplings and advanced quantum control I

Chairman: Simone Felicetti Room 25.1.2

Anasua Chatterjee	(Inv)	*Quantum dot and resonator arrays as light-matter analogues*
Gian Marcello Andolina	(Inv)	*Theory of Photon Condensation in a Spatially-Varying Electromagnetic Field*
Daniele de Bernardis	(Inv)	*Relaxation breakdown and resonant tunneling in ultrastrong-coupling cavity QED*
Alberto Mercurio	(Inv)	*Pure Dephasing of Light-Matter Systems in the Ultrastrong and Deep-Strong Coupling Regimes*
Giuliano Chiriac	(Inv)	*Entanglement and (first-order) phase transitions in light-matter systems*

MC_42: Ion beam induced morphological alteration of materials: experiments, theoretical models and simulations II

Chairman: Michele Amato Room 25.1.3

Alexander Azarov	(Inv)	*Radiation disorder induced ordering*
Marco Abbarchi	(Inv)	*Silicon-based quantum emitters at telecom frequency*
Milena D. Majki		*Cohesive energy model for the nanohillocks and nanocraters formation on a metal surface by an impact of slow highly charged ions*
Enrico Napolitani	(Inv)	*'Hyperdoping of group-IV Semiconductors by Pulsed Laser Melting*
Jose Maria De Teresa		*Growth of metallic nanopatterns by Focused Ion Beam (FIB) direct modification of condensed precursor layers and spin-coated organometallic thin films*

MC_38: New perspectives in electron microscopy for condensed matter Physics II

Chairman: Anjam Khursheed Room 25.1.4

Cornelia Rodenburg	(Inv)	*Perspectives on secondary electron spectroscopy and hyperspectral imaging (SEHI) in the scanning electron microscope (SEM) to map density of states spatial distributions on the nanoscale*
Ludovica Rovatti	(Inv)	*Potential applications of EBSD for the analysis of metal alloys*
Silvia Maria Pietralunga		*Time-resolved 2D mapping of surface photovoltages and charge dynamics in semiconductors by SEM*
Filip Mika		*Characterization of doped semiconductors by energy selective detection in SEM*

Mohamed Zaghloul		*Imaging MEMS motion at nanoscale with time-resolved scanning electron microscopy*
Wenzheng Cao		*Secondary electron energy spectroscopy in the scanning electron microscope and its potential applications*

MC_22: Driven amorphous solids: linking microscopic structure and dynamics to mechanical properties III

Chairman: Roberto Benzi — Room 25.1.5

Beatrice Ruta	(Inv)	*Pressure dependence of the collective motion in metallic glasses*
Alessandro Martinelli		*Reaching the yield point of a glass during X-ray irradiation*
Jean-Louis Barrat		*Thermal and mechanical cycling of metallic glasses*
Jacopo Baglioni		*X-ray Induced Structural, Dynamic and Thermodynamic Modifications in Chalcogenide Glasses*

MC_30: Femtosecond photoemission spectroscopy in charge ordered materials II

Chairman: Wibke Bronsch — Room 25.1.6

Hamoon Hedayat	(Inv)	*Uncovering Non-Equilibrium Behavior and Transitions in Quantum Materials Using Time-Resolved Raman Spectroscopy*
Manuel Tuniz	(Inv)	*Manipulation of the charge-density-wave in VTe2 by femtosecond light pulses*
Yu Zhang		*A high repetition rate XUV source for time-resolved momentum space mapping of photoelectrons*
Ping-Hui Lin		*Evidence for one dimensional to three dimensional CDW phase formation in CuTe through pump-probe spectroscopy and angle-resolved photoemission spectroscopy*
Fei Guo		*Quantum time scales associated with CDW materials CuTe and TiSe2*
Niccol Mignani		*Charge Density Waves in ZrTe3: the fate of nesting in real 3D materials.*
Wibke Bronsch		*Non-equilibrium dynamics of bulk VSe2*
Armando Consiglio		*Dynamics and Resilience of the Charge Density Wave in a bilayer kagome metal*

MC_44: New insights on emerging materials and concepts for neuromorphic computing I

Chairman: Paolo Milani — Room CIDiS 501

Daniele Ielmini	(Inv)	*Status and challenges of neuromorphic computing with emerging devices and materials*

Gianluca Milano	(Inv)	*Emerging dynamics of self-organizing memristive networks through graph theory*
Francesca Borghi		*Nanostructured Neuromorphic Devices for in-Materia Adaptive Computing*
Matteo Farronato		*Reservoir computing with 2D semiconductor devices*
Juan Bisquert		*Device phyics criteria to make spiking neurons by ac impedance characteristics*
Aida Todri-Sanial		*Computing with Physical Systems based Oscillatory Neural Networks Materials, Devices and Circuit Design Overview*
Stefano Brivio		*Computing through tunable deterministic chaos generated by memristor-based dynamical circuits*
Enrico Prati		*Quantum reservoir computing*

MC_56: Mesoscopic superconductivity and quantum circuits III

Chairman: Giuseppe Falci Room CIDiS 502

Wolfgang Belzig	(Inv)	*Higher-dimensional topology and fractional states of matter in superconducting systems*
David Scheer	(Inv)	*On-chip driving of a phase slip junction for dual Shapiro steps*
Fabian Kaap		*Investigation of two coupled Bloch oscillators based on Al/AlOx/Al-Josephson junctions*
Oleksiy Kashuba		*Quantisation on the closed manifolds in topological superconducting circuits*
Ben Blain		*Soliton versus single photon quantum dynamics in arrays of superconducting qubits*
Riccardo Roma		*Digital-analog simulation of the Hubbard-Holstein model*
Yuriy Yerin		*Magneto-topological transitions and a zoo of topological states in multicomponent superconductors*
Tim Kokkeler		*Spectroscopic signature of spin triplet odd-valley superconductivity in two-dimensional materials*

MC_43: Nanodevice iontronics II

Chairman: Claudio Fontanesi Room CIDiS 503

Alberto Morpurgo	(Inv)	*New developments in ionic gating of 2D materials*
Susan Fullerton Shirey	(Inv)	*Strain-induced semiconducting to semi-metallic phase transition in MoTe2 using a single-ion conductor*
Renato S. Gonnelli	(Inv)	*Ionic-gating tuning of the electronic properties of 3D and 2D materials*
Nicolas Ubrig		*Light sources based on Ionic Gated van der Waals interface transistors*
Dario Daghero		*Ionic-gating control of bulk superconductivity in NbN thin films*

Marco Gibertini	*Volatile and non-volatile control of 2D topological insulators with vertical electric fields*
Leonardo Martini	*Ionic liquid gating of CVD-growth WS2-based field effect transistors*
Erik Piatti	*Charge transport mechanisms in inkjet-printed thin-film transistors based on ion-gated molybdenum disulfide*
Arslan Liaquat	*Impact of counter-electrode and device architecture on the gating performance of iontronic transistors*

GS_16: Optics and photonics - quantum optics

Chairman: Ottavia Jedrkiewicz — Room CIDiS 504

Marco Barbieri	(Inv)	*A semiparametric approach to Quantum Metrology*
Enrico Prati		*Fully Integrated Silicon Photonic Erbium-Doped Nanodiode for Few Photon Emission at Telecom Wavelengths*
Marco Liscidini	(Inv)	*Generation of non-classical light in photonic integrated platforms*
Petr Steindl		*Cross-polarization extinction enhancement and spin-orbit coupling of light for quantum dot cavity-QED spectroscopy*
Martin Hayhurst Appel		*An Optically Active Central Spin Coupled to a Multi-Element Nuclear Ensemble*
Salvatore Cianci		*Single-photon emitters from spatially-controlled, hydrogen-filled WS2 domes*
Alejandro Vivas-Viaa		*Unconventional mechanism of virtual-state population through dissipation*
Ariane Soret		*Thermodynamics of atom-photons interactions near resonance*

GS_11: Synthesis and characterization of materials I

Chairman: Gabriele De Luca — Room Fisica B

Gabriele De Luca	(Inv)	*Double perovskite oxide thin films and superlattices enabled by RHEED-assisted magnetronsputtering*
Cristina Mancarella		*Development of ZnSnN2 films by reactive High-Power Impulse Magnetron Sputtering for tandem solar cells*
Raffaello Mazzaro		*Operando XAS analysis of Co-Fe co-catalysts in a flow photoelectrochemical cell*
Benedetta Albini		*TiO2 crystalline phases formation on titanium-based dental implants: a Raman study*
Igor Veremchuk		*Magnetism and magnetoelectricity of textured thin films and polycrystalline bulk -Cr2O3*

GS_02: Biophysics II

Chairman: Francesco Spinozzi — Room Fisica C

Rita Guzzi	(Inv)	*ATR-FTIR spectroscopy of plasma supported by multivariate analysis discriminates multiple sclerosis disease*
Giuseppe Chirico	(Inv)	*Multiphoton microscopy imaging in-vivo through 2PP fabricated microlenses*
Luca Ronda		*The story of a new hemoglobin binder*
Tiziana Mancini		*Infrared spectroscopy investigation of Spike protein from MERS-CoV, SARS-CoV, SARS-CoV-2 and its variats for the development of an optical biosensor*
majid layachi		*Microfluidic flow of vesicle prototissues : A model for cell tissues*
Simone Taioli		*Relative role of the physical mechanisms on complex biodamage induced by carbon irradiation*
Annamaria Zaltron		*Interaction of Thymidylate Synthase with its consensus mRNA: a single-molecule study with optical tweezers*
Francesco Ferrara		*Design and development of a microfluidic device for cellular microenvironment doplet generation*
Arianna Magni		*The Photophysics of Cell Membrane-Targeting Phototransducers*

GS_12: Computational methods for materials design II

Chairman: Alessio Zaccone — Room — Fisica D

Simone Brozzesi	*Ab-initio study of the effects of Pb intercalation in Graphene/SiC heterostructures*
Daniele Perilli	*Combining theoretical modeling and experiments to characterize graphene-based nanosystems*
Malte Grunert	*Novel phase-field method for the efficient numerical generation of porous particle geometries*
Sonia Cambiaso	*Grafting heterogeneities rule intrusion and extrusion in nanopores*
Francesco Floris	*Gold Nanohole Arrays: Computational Design and Optimization*
Yana Propad	*Crystal structure generator with fixed environment*

GS_15: Optics and photonics - nanophotonics and metamaterials II

Chairman: Paolo Biagioni — Room — Fisica E

Costantino De Angelis	(Inv)	*Analog image processing with nonlinear nonlocal flat-optics*
Agostino Di Francescantonio		*All-optical coherent routing of upconverted light by a nonlinear metasurface*
Mert Akturk		*Ultrafast All-Optical Reconfiguration of Birefringence in Nonlinear All-Dielectric Metasurfaces*
Monica Bollani		*Functionalized Mie resonators obtained via solid state dewetting*

Yigong Luan	*Surface vs bulk contribution to the second-harmonic generation in AlGaAs nanoresonators*
Daniele Maria Trucchi	*Defect engineering of wide bandgap semiconductors by ultrashort laser nanostructuring*
Giovanni Isella	*micro-crystals based photedetectors with enhanced infrared responsivity*
Alessandro Chiasera	*Flexible 1D photonic crystals and active planar waveguides: fabrication and assessment*

GS_07: Theory advances in condensed matter

Chairman: Zeila Zanolli — Room Fisica T

Fabien Bruneval	(Inv)	*Many-body perturbation theory: Is the GW Feynman diagram the optimal choice?*
Pina Romaniello	(Inv)	*Photoemission spectroscopy from the three-body Greens function*
Raja Sen		*Role of dimensionality, size, and transport-direction in governing the drag Seebeck coefficient of doped silicon nanostructures: A first-principles study*
Nikhil Danny Babu		*Non-Markovian transients in non-equilibrium transport between chiral quantum wires coupled through a point-contact*
Aitor Calvo-Fernndez		*Implementation of discrete orbital symmetries in the Numerical Renormalization Group: Application to Anderson models of magnetic impurities in crystalline environments.*
Luciano Jacopo D'Onofrio		*Tight binding simulation of laser-assisted ultrafast field-emission from correlated metal*
Alberto Cappellaro		*Torque and Friction on Rotating Impurities*
Ulugbek Kurbanov		*Metal/superconductor-insulator transitions and their effects on high-Tc superconductivity in underdoped and optimally doped cuprates*
Christian Apostoli		*The time-dependent Variational Monte Carlo method with Baeriswyl-Shadow Neural Network Quantum States*

MC_29: Engineered topological correlated states in hybrid quantum systems I

Chairman: Alexander Zyuzin Room 26.0.1

Jakub Tworzydo	(Inv)	*Tangent fermions: Dirac or Majorana fermions on a lattice without fermion doubling.*
Nicolas Regnault	(Inv)	*The age of topological material databases*
Benjamin Sacepe	(Inv)	*Multi-electron correlations in quantum Hall Fabry-Prot interferometers*
Thomas Schmidt	(Inv)	*Supercurrent-enabled Andreev reflection in a chiral quantum Hall edge state*
Alessandro Principi	(Inv)	*Hyper-magic manifold in twisted Kitaev bilayers*

MC_60: Molecular imaging and exploration of chemical reactions by scanning probe microscopy techniques I

Chairman: Gianlorenzo Bussetti Room 26.0.2

Francesco Sedona	(Inv)	*The importance of being in the right place*
Luca Camilli	(Inv)	*Chalcogen bond at work on surface*
Sabine Maier	(Inv)	*On-surface synthesis: A bottom-up strategy to low-dimensional carbon-structures*
Daniel Ebeling	(Inv)	*On-surface synthesis of organic nanostructures and molecules via scanning probe manipulation*
Lucia Vitali	(Inv)	*Power discontinuity and shift of the energy onset of a molecular de-bromination reaction induced by hot-electron tunneling*

MC_52: Nonequilibrium phenomena and superconductor 3D nanoarchitectures I

Chairman: O. Dobrovolskiy Room 26.0.3

Alejandro Silhanek	(Inv)	*Catastrophic magnetic flux avalanches threaten the performance of NbTiN superconducting resonators*
Mariia Sidorova	(Inv)	*Superconducting Single-Photon Detectors from the perspective of material science*
Antonio Leo	(Inv)	*What we learned on playing with Vortex Lattice Instability*

Nicola Pompeo (Inv) *High frequency vortex dynamics in (Y,Gd)BCO and FeSeTe films in high dc magnetic fields: flux flow, creep, pinning and effect of artificial pinning centers*

Nicola Poccia (Inv) *Towards the integration of CMOS electronics in the emergent high temperature superconducting phase of twisted bilayers cuprate heterostructures*

GS_01: Atomic and molecular physics I

Chairman: Lorenzo Avaldi Room 26.0.4

Mauro Nisoli (Inv) *Ultrafast Dynamics in Donor-Acceptor Molecules Initiated by Attosecond Pulses*

Carlo Callegari (Inv) *On the generation of transient molecules, and their time-resolved photoelectron spectroscopy at the S2p edge*

Emanuele Coccia *Molecular-orbital decomposition of HHG spectra of aligned uracil*

Lorenzo Mai *UV pump - XUV probe Beamline for Ultrafast Molecular Spectroscopy with sub-20 fs temporal resolution*

Stefano Falcinelli (Inv) *The Role of Molecular Dications From the Astrochemistry to Plasma Assisted CO2 Methanation*

Jacopo Chiarinelli *Cyclic dipeptides as intermediate 'seeds of life'? An experimental and computational model*

Giacomo Pannacci *Crossed-beam studies of the O(3P, 1D) reactions with cyanoacetylene and acrylonitrile: product branching fractions and role of intersystem crossing*

GS_14: Functional oxides I

Chairman: Riccardo Bertacco Room 26.1.1

Cesare Franchini (Inv) *Multipolar magnetism in spin-orbit entangled oxides*

Paola Luches (Inv) *Ultrafast dynamics of photoexcited states in cerium oxide*

Pavlo Makushko *Flexomagnetism and vertically graded Nel temperature in the epitaxial Cr2O3 thin films*

Marco Caputo *Charge transfer, orbital reorganisation, and inhibition of the electrical conductance at the TCNQ/SrTiO3 interface*

Hao Chen *Tailoring crystalline structure of RF-sputtered tungsten oxide thin films by annealing in air, N2 and vacuum*

Bruna Silva *Strain-dependent magnetic properties of Ca3Mn2O7 thin films prepared by pulsed laser deposition*

Sein Lee *Hydrogen-Induced Reliability Characterization of Crystalline IGZO Thin-Film Transistors*

Giulia Pavese *Lead-free piezoelectric thin films made of K0.5Na0.5NbO3*

GS_21: Superconductivity materials and phenomena II

Chairman: Lilia Boeri Room 26.1.2

Laura Fanfarillo	(Inv)	*Interplay between Hund-driven Correlations, Superconductivity and Nematicity*
Matteo D'Astuto		*High temperature superconducting oxychlorides: a 2D model for cuprates*
Zurab Guguchia		*Using uniaxial stress to probe the relationship between competing superconducting states in a cuprate with spin-stripe order*
Ricardo Oliveira		*Incommensurability-Induced Enhancement of Superconductivity in One Dimensional Critical Systems*
Chafic Fawaz		*High temperature superconducting oxychlorides: A light element model for cuprates*
Luca Tomarchio		*Electrodynamic Spectroscopic Signatures in Nicklelate and Cuprate Superconductors*
Niccol Sellati		*Generalized plasma waves and linear response in bilayer superconductors*
Jacopo Fiore		*Non-Linear Manipulation of Plasma Excitations in Cuprates with THz Light Pulses: from the Single- to the Bi-Layer Case*
Tommaso Morresi		*Path Integral study of phonons and structural phase transition in the supercondicting regime of H3S*

MC_55: Magnet/superconductor hybrids for quantum information science and technologyI II

Chairman: Carmine Attanasio Room 26.1.3

Elke Scheer	(Inv)	*Possible triplet superconductivity in superconductor-ferromagnet van der Waals bilayers with spiral magnetization*
Reiner Brning		*Magnetism of ultrathin Fe films on the elemental superconductor Ta(110)*
Norman Birge	(Inv)	*Games with spin-triplet supercurrent in ferromagnetic Josephson junctions*
Kristian Mland		*Topological Superconductivity Mediated by Skyrmionic Magnons*
Carla Cirillo	(Inv)	*Investigation of the superconducting pairing symmetry in NbRe/Co heterostructures*

MC_44: New insights on emerging materials and concepts for neuromorphic computing II

Chairman: Sabina Spiga Room 26.1.4

Stephan Menzel	(Inv)	*Physical Modelling of Materials and Devices for Neuromorphic Computing*

Christopher Bengel		*Compact Modeling for Neuromorphic Computing*
Francesco Vaccaro		*Modelling of cation-based RRAMs for neuromorphic computing*
Donato Francesco Falcone		*Physical modelling and optimization of analog Conductive Metal Oxide-HfO2 ReRAM artificial synapses for neuromorphic computing*
Kristoffer Schnieders		*Effect of electron conduction on the read noise characteristics in ReRAM devices*
Regina Dittmann		*Rational design of redoxed-based memristive devices for neuromorphic computing*
Alexandros Sarantopoulos		*Kinetics Acceleration of Memristive Devices Driven by Thermal Confinement*
Asal Kiazadeh	(Inv)	*Flexible electronics: Amorphous oxide semiconductor devices towards in-memory computation*

GS_22: Surfaces and interfaces II

Chairman: Luca Floreano Room 26.1.5

Paolo Settembri		*Strain induced changes in surface and topological properties of NiTe2 Dirac semimetal*
Paolo Ossi		*On the bond coordination of water molecules at snow and ice surfaces*
Pietro Maria Forcella		*Exploring electronic properties of phase-change arsenic telluride*
Weronika Andrzejewska		*Directional growth of ferromagnetic iron oxide nanowires on Cu(410)*
Gianluca D'Olimpio		*Oxidation-Driven Heterostructures in Van der Waals Semiconductors: Insights and Applications*
Mikoaj Lewandowski		*Structural flexibility of ultrathin iron oxide islands on Ru(0001)*
Francesco Floris		*Displacement Talbot Lithography to Scale-up Plasmonic Metasurface Fabrication*

MC_57: Microscopic investigation of the solid/liquid interface II

Chairman: Salvatore Daniele Room 26.1.6

Marek Nowicki	(Inv)	*Porphyrin layers at Cu/Au(111)-electrolyte interface: EC-STM and CV study*
Alberto Guadagnini	(Inv)	*Stochastic analysis of calcite dissolution rates observed through AFM*
Rossella Yivlialin		*Optical anisotropy spectroscopy at the solid-liquid interface to detect the dissolution of organic nanocrystals*

Matteo Olgiati		*Towards understanding interfacial thermodynamics: visualising and quantifying cation adsorption on muscovite mica with AFM*
Max Warburton		*HIghlighting a deep impact of wetting on solid dynamics*

MC_05: Scattering and light propagation in disordered media I

Chairman: Giulia Maffeis — Room 25.1.1

Giorgio Volpe		*Programmable Random Lasers from Reversible Colloidal Assemblies*
Vamshi Damagatla		*Null-separation time-domain diffuse optical spectroscopy with a superconducting nanowire detector*
Elisabetta Avanzi		*Silicon photomultiplier detector array: preliminary use in fluorescence lifetime sensing and diffuse optics*
Fabio Negretti		*Latest advancements for Time Domain NIRS in agri-tech sector*
Jessica Gemignani	(Inv)	*The use of machine-learning techniques for fNIRS data analysis: state of the art and future perspectives*
Letizia Contini		*Time Domain fNIRS for monitoring hemodynamic oscillations in brain tissue*
Marco Nabacino		*TD NIRS and DCS for the assessment of skeletal muscle aging*

MC_18: Unconventional light-matter interactions: ultrastrong/parametric couplings and advanced quantum control II

Chairman: Anasua Chatterjee — Room 25.1.2

Philipp Schneeweiss	(Inv)	*Atomic spin-controlled non-reciprocal Raman amplification of fibre-guided light*
Louis Garbe	(Inv)	*Critical sensing with finite-size bosonic systems*
Elisabetta Paladino	(Inv)	*Adiabatic quantum operations in systems of ultrastrongly coupled matter and radiation*
Carlos Snchez Muoz	(Inv)	*Spontaneous Scattering of Raman Photons from Cavity-QED Systems in the Ultrastrong Coupling Regime*
Uesli Alushi	(Inv)	*Waveguide QED with Quadratic Light-Matter Interactions*

GS_20: Soft and glassy and liquid matter I

Chairman: Giulio Monaco — Room 25.1.3

Roberto Piazza	(Inv)	*Thermal forces: Moving and manipulating matter with thermal gradients*
Roel Dullens	(Inv)	*Emergence of interparticle friction in attractive colloidal matter*
Bruno Zappone		*Strength from defects: Topological barriers to defect nucleation generate large mechanical forces in a cholesteric*
Jos Ruiz-Franco		*Inducing Self-Healing in Hard Materials*

Francesco Dallari		*Microsecond dynamics in complex liquids with MHz XPCS*
Manuel Moratalla Martn		*Suppresion of two-level systems in TPD ultrastable glasses*
Peihao Sun		*Supercooled liquid tellurium: Waters distant relative?*

MC_38: New perspectives in electron microscopy for condensed matter Physics III

Chairman: Silvia M. Pietralunga Room 25.1.4

Tom Chlouba	(Inv)	*EELS physics inside of an (ultrafast) SEM*
Andrea Konecna	(Inv)	*Probing optical excitations by electron energy-loss spectroscopy in a scanning transmission electron microscope*
Anjam Khursheed	(Inv)	*Quantum state scanning electron microscopy*
Simone Taioli	(Inv)	*Electronic excitation spectra and yield: from ab initio dielectric response functions to charge transport Monte Carlo simulations*
Alexandr Knpek		*Quasiharmonic electron source based on an epoxy-coated array of field-emission tips*
Abbas Kosari Mehr		*Concurrent Auger, reflection electron energy-loss, and secondary electron emission spectromicroscopy in a scanning microscope*

MC_04: Mechanobiology of cell division and transport II

Chairman: Maryam Kohram Room 25.1.5

Pieter Rein ten Wolde	(Inv)	*Cytokinesis driven by passive crosslinkers*
Vasily Zaburdaev	(Inv)	*How the cell nucleus sets its size and density*
Domagoj Boan		*Length-dependent poleward flux of sister kinetochore fibers promotes chromosome alignment*
Jean-Franois Berret		*Magnetic wires as probes for active microrheology: applications to the cytoplasm of living cells and extracellular body fluids*

GS_11: Synthesis and characterization of materials II

Chairman: Lucia Sorba Room 25.1.6

Jijil JJ Nivas	(Inv)	*Femtosecond laser surface structuring and processing with gaussian and structured laser beams*
Alessandra Invidia		*Nanostructured natural compounds for the immunosurveillance manipulation*
Subrata Ghosh		*Suitability of Amorphous Carbon Nanofoam as a Mechanical Platform for Heterostructures*
Davide Orecchia		*Femtosecond Pulsed Laser Deposition of low-density nanofoams*

Antonio Maggiore	*Controlling thermally activated delayed fluorescence (TADF) and room temperature phosphorescence (RTP) properties through supramolecular organization.*
Artur Tuktamyshev	*Droplet epitaxy of nanostructures for photonic devices*
Magdalena Sobota	*Anti-corrosion properties of Fe-Cr-Si alloys studied by XPS and Mssbauer Spectroscopy*
Loushambam Herojit Singh	*Raman spectroscopy investigation on the detection of intense single magnon scattering in the plasma exposed ZnO and -Fe2O3 composite*

MC_29: Engineered topological correlated states in hybrid quantum systems II

Chairman: Manohar Kumar Room 26.0.1

Thibaut Jonckheere	(Inv)	*Anyonic statistics revealed by the Hong-Ou-Mandel dip for fractional excitations*
Gwendal Fve	(Inv)	*Fractional statistics of anyons in mesoscopic colliders*
Fabio Taddei	(Inv)	*Topological Josephson junctions: thermoelectricity and implementations*
Changki Hong	(Inv)	*Observation of braiding statistics in injecting diluted anyons*
Daniele Di Miceli		*Antisymmetric Breaking of Voltage Gauge Invariance due to Majorana States in Magnetic Topological Insulators*

MC_60: Molecular imaging and exploration of chemical reactions by scanning probe microscopy techniques II

Chairman: Willi Auwärter Room 26.0.2

Uta Schlickum	(Inv)	*High Resolution Imaging of glycans and peptides*
Lorenzo Poggini	(Inv)	*Electron delocalization in Titanium(III) Mixed-Sandwich Qubits*
Cristiano Albonetti	(Inv)	*Identification of ultra-thin molecular layers atop monolayer terraces in sub-monolayer organic films with scanning probe microscopy*

MC_52: Nonequilibrium phenomena and superconductor 3D nanoarchitectures II

Chairman: Vladimir Fomin Room 26.0.3

Oleksandr Dobrovolskiy	(Inv)	*3D nanoarchitectures for superconductivity and magnetism*
Rosa Crdoba	(Inv)	*Study of curvilinear and three-dimensional superconducting nanoarchitectures*
Vladimir M. Fomin	(Inv)	*Frequency Locking and Vortex Confinement in Superconductor Nanoarchitectures under Modulated Transport Current and Tilted Magnetic Field*
Alessio Zaccone	(Inv)	*Topological transition due to quantum confinement in thin superconductor films*
Domenico Montemurro	(Inv)	*A superconducting platform for hybrid circuits*

GS_01: Atomic and molecular physics II

Chairman: Mauro Nisoli Room 26.0.4

Maria Novella Piancastelli	(Inv)	*Femtosecond dynamics in water and deuterated water multiphoton core ionization*
Lorenzo Mai		*Sub-20 fs UV-XUV photoelectron spectroscopy resolving the ultrafast non-adiabatic dynamics of acetylacetone*
Laura Carlini		*A gas-phase study: photoemission and state-selected fragmentation of aromatic cyclo-dipeptides*
Fulvio Perrella		*Excited and ionized states of nucleic acid - protein complexes model systems: a joint experimental/computational investigation*
Lorenzo Avaldi		*Experimental and theoretical investigation of inter- and intra-molecular inter-actions in homogeneous and hydrated uracil clusters*
Marco Lamperti		*High-accuracy Raman Spectroscopy of Molecular Hydrogen*
Stefano Simonucci		*Relativistic calculations of electron-water scattering*

GS_14: Functional oxides II

Chairman: Daniele Marrè Room 26.1.1

Miguel-Angel Badillo-Avila	(Inv)	*Low-Toxicity Chemical Solution Deposition of Ferroelectric HfO2*
Luca Pasquini	(Inv)	*Nanostructured metal oxide semiconductors for photoelectrocatalytic conversion of solar energy*
Nicola Manca		*Functional Oxides for Enriched MEMS*
Marco Pugliese		*Visible/Near-Infrared Dual-Band Electrochromic Device*
Camilla Bordoni		*Oxide TFTs with ALD gate dielectrics as highly sensitive ionizing radiation detectors*

GS_21: Superconductivity materials and phenomena III

Chairman: Renato Gonnelli Room 26.1.2

Pietro Bonfa'	(Inv)	*Charge Order in Kagome Superconductors*
Charles Mielke III		*Magnetic Impurity Effect in the kagome superconductor LaRu3Si2*
Max Taylor		*Half-integer Shapiro steps in graphene SQUIDs*
Rishabh Upadhyay		*Microwave Quantum Diode*
Emily Gamblen		*In search of the Meissner effect in 2D superconductor NbSe2*
Alfredo Spuri		*Superspintronics based on van der Waals/non-van der Waals hybrids.*
Florent Condaminas		*Measurements of the superconducting properties of aluminum thin films by Point Contact Spectroscopy*

Dilshod Djumonov		*Origins of anomalies in the temperature dependences of specific heat and superfluid density in doped high-Tc cuprates: signatures of Bose-liquid superconductivity*

MC_55: Magnet/superconductor hybrids for quantum information science and technologyI III

Chairman: Angelo Di Bernardo — Room 26.1.3

Stuart Parkin	(Inv)	*The Josephson Diode effect*
Maria Spies		*Superconducting diodes based on quasiparticles and Cooper pairs*
Panch Ram		*Andreev and normal reflections in a gated bilayer graphene normal-superconductor junction*
Saulius Vaitiekenas	(Inv)	*Spin-split superconductivity in triple-hybrid materials*
Tosson Elalaily		*Signatures of gate-induced out-of-equilibrium superconducting state in hybrid semiconductor-superconductor nanowires*
Aleksandr Svetogorov		*Resonant ionization of an Andreev level*

MC_44: New insights on emerging materials and concepts for neuromorphic computing III

Chairman: Regina Dittmann — Room 26.1.4

Valeria Bragaglia	(Inv)	*The Role of Material Science in Neuromorphic Computing*
Silvia Battistoni	(Inv)	*Organic synapses: a polymeric approach*
Suzanne Lancaster	(Inv)	*Characterisation and device integration of ferroelectric hafnia for neuromorphic applications*
Riccardo Bertacco		*Multistate Ta/CoFeB/MgO heterostructures controlled by spin-orbit torque*
Catarina Dias		*Resistive switching in copper-based liquids for neuromorphic computing*
Catarina Dias		*Fabrication and characterization of MXene flakes for neuromorphic applications*
Omar Abou El Kheir		*Unraveling the Crystallization Kinetics of the Ge$_2$Sb$_2$Te$_5$ Phase Change Compound with a Machine-Learned Interatomic Potential*

GS_22: Surfaces and interfaces III

Chairman: Alberto Calloni — Room 26.1.5

Gaetano Scamarcio	(Inv)	*Extended surface potential shift induced by single-molecule affinity bindings at large-area biofunctionalized interfaces*

Roberta Zanini		*Compositional changes by SIMS and XPS analyses on fresh and aged Roman-like glass*
Mathieu Freville		*New in-situ method for surface evolution monitoring during metallic deposition*
Sebastian Cremaschini		*Optofluidic platform for the manipulation of water droplets on engineered LiNbO3 surfaces*
Filippo Marinello		*Electro and opto-wetting of chromonic liquid crystals*
Francesco Ghezzi		*Explaining the onset of surface silicon maskless nanopatterning by reactive ion etching in CF4/H2 plasma.*
Maria Barbara Maccioni		*First Principles Modelling of Germanium Surfaces and Nanostructures for Nanoelectronics*
Ofer Manor		*Voltage leakage off electro-mechanical ion resonance in electrical double layers translate to fingerprints of electrolyte solutions and dynamic EDL properties*

MC_57: Microscopic investigation of the solid/liquid interface III

Chairman: Gianlorenzo Bussetti Room 26.1.6

David E. Starr	(Inv)	*Synchrotron-based ambient pressure X-ray photoelectron spectroscopy studies of solid-liquid interfaces*
Salvatore Daniele	(Inv)	*Scanning electrochemical microscopy and its potential for studying solid solution interfaces*
Max Gromann		*Experimental and ab initio investigation of GaInP surfaces exposed to O2 and H2O*
Claudio Goletti		*Browsing the solid/liquid interface*
Daniela Miano		*Adhesion at the solid/liquid interface for applications in semiconductor industry*

MC_05: Scattering and light propagation in disordered media II

Chairman: Andrea Bassi Room 25.1.1

Sergey Skipetrov	(Inv)	*Anderson localization and ubiquitous diffusion of light*
Pedro Saenz		*Absence of diffusion in pilot-wave hydrodynamics: A classical wave-particle analog of Anderson localization*
Giuseppe Pucci		*Wavelike behavior of wave-driven particles interacting with linear barriers*
Frank Scheffold	(Inv)	*Photonics spheres by microgel templating*
Peter Nagli		*Digital holographic microscopy in reflection mode for precise topography determination of liquid crystal textures on micropatterned substrates*
Ezequiel Ferrero		*Temperature dependence of fast relaxation processes in amorphous materials*

Alessandro Bossi		*Using Optical Properties as Markers for Thermal Treatment of Cancer: Insights from Diffuse Optical Spectroscopy in Bovine Lung Tissue*

MC_18: Unconventional light-matter interactions: ultrastrong/parametric couplings and advanced quantum control III

Chairman: Giuseppe Falci — Room 25.1.2

Pasquale Scarlino	(Inv)	*High Impedance Superconducting Technology for Hybrid Devices and Analog Quantum Simulation*
Francesco Ciccarello	(Inv)	*Atom-atom interactions in topological and non-Hermitian photonic baths*
Gianluca Rastelli	(Inv)	*Quantum-correlated photons generated by nonlocal electron transport*
Fabrizio Minganti	(Inv)	*Inducing Membrane Vibrations by Modulating Virtual Photons*

GS_20: Soft and glassy and liquid matter II

Chairman: Roberto Piazza — Room 25.1.3

Giampaolo Mistura	*Novel motion of non-Newtonian droplets on slippery lubricated surfaces*
Andrea Ninarello	*Critical and hyper-auxetic polymer networks*
Daniele Filippi	*Fluidization and wall slip of soft glasses boosted by directional surface roughness*
Pranay Patil	*Anomalous relaxation of density waves in a ring-exchange system*
Ladislav Derzsi	*Controlling the flow of Soft Glassy Material in microchannels by patterned surface*
Silvia Franco	*Study of the Phase Behavior of Doubly Responsive IPN Microgels*
Praveen Parthasarathi	*Computer simulations of the dynamics of asymmetric dimers in optical traps of varying polarisation*
Thomas Suchanek	*Irreversible mesoscale fluctuations herald the emergence of dynamical phases*
Stefano Mossa	*Instantaneous normal modes in liquids*

GS_03: Medical applications

Chairman: Marco De Spirito — Room 25.1.4

Maria Serena Chiriac	(Inv)	*TITAN Project: microfluidic and sensing tools for immunotherapy*
Massimiliano Papi	(Inv)	*3D-Printing of Graphene-Based Scaffolds for Breast Cancer Treatment*
Pietro Ferraro		*New developments in 3D QPI Tomography in Flow-Cytometry modality*

Diego Lopez-Pigozzi	*Towards personalized medicine: investigating the pathogenesis of Parkinsons disease by human midbrain organoids*
Alessandro De Giorgi	*Development of computational models for organ-on-chip devices*
Giovanni Nava	*Digital Detection of Whole Virus Particles by Label-Free optical Biosensor*
Giulia Siciliano	*Development of a MIP based electrochemical sensor for TGF1 detection and its application in liquid biopsy*
Davide Serafini	*Laser Photo-Ionization Study and Radiopharmaceutical Application of Ag-111 at SPES, INFN-LNL*

GS_18: Optics and Photonics - Light-matter interaction

Chairman: Lucio C. Andreani Room 25.1.5

Daniele Sanvitto	(Inv)	*Quantum Fluids of Interacting Photons*
Simone De Liberato	(Inv)	*Weaving quantum materials with light*
Simone Zanotti		*Theory of Photonic Crystal Polaritons in Periodically Patterned Multilayer Waveguides*
Giovanni Bragato		*Droplet-based opto-microfluidic device for microplastics detection in aqueous solutions*
Prasenjit Prasad Sukul		*Pure white light generation from a single biphasic phosphor using enhanced blue upconversion yield*
Amir Eskandari-asl		*Dynamical Projective Operatorial Approach and its application to TR-ARPES signal*
Adolfo Avella		*TR-ARPES signal in germanium pumped with an ultrashort IR pulse*
Giuseppe Maria Patern		*Membrane Targeted Azobenzene Drives Optical Modulation of Bacterial Membrane Potential*

GS_11: Synthesis and characterization of materials III

Chairman: Stefan Heun Room 25.1.6

Pietro Colucci	*Development of hybrid materials for thermal decomposition based on expanded clay, ceria, lanthanum, and ruthenium for effective circular economy and thermal catalysis.*
Lucia Vitali	*Thioetherification of Br-Mercaptobiphenyl Molecules on Au(111)*
Iolanda Di Bernardo	*Metastable Polymorphic Phases in Monolayer TaTe2*
Clara Baldari	*Biomimetic Nanoparticles production and validation for Tumor Self-Targeting in Cancer Therapy*
Ilaria Elena Palam	*BioFactory: exploiting living cells for producing innovative biomaterials*

Gabriele Maiorano	*Advancing immunotherapies trough nanotechnological approaches for gene delivery*
Ludovico Aloisio	*Conductive thiophene-based fibers synthesized by living cells as novel bioelectronic materials*
Michele Magnozzi	*Enhancing Titania-Tantala Amorphous Materials as High-Index Layers in Bragg Reflectors of Gravitational-Wave Detectors*

Posters

Poster sessions will take place in building 26.

Posters must be hung on billboards in the position indicated by the number in the first column preceding the author's name and the title.

Poster session I (September 4th)

1	Eleonora Alfinito	*Did Maxwell dream of electrical bacteria?*
2	Bernardo Almeida	*Dielectric properties of multiferroic CoFe2O4\BaTiO3 Bilayers*
3	Maryam Azizinia	*Study of photoemission microscopy of single photon detectors and topological materials*
4	Antonella Battisti	*Phasor-FLIM analysis of bacterial porphyrins in Helicobacter pylori biofilms*
5	Lorenzo Bernazzani	*Bipolar Thermoelectricity in Bilayer-GrapheneSuperconductor Tunnel Junctions*
6	Tatiana Bezriadina	*Theoretical description of X-ray absorption by laser-driven electronic system*
7	Federico Bianconi	*Structural Phase Diagram of the Ba1 xEuxTiO3 Solid Solution*
8	Ji-Hyuk Choi	*Dense and Binder-free Functionalized Graphene Composite Platform*
9	Domenico Corona	*Encapsulated BN nanocages and nanocapsules as anode materials for Magnesium-Ion Batteries: A DFT Study*
10	Paolo D'Agosta	*In-situ scanning tunneling microscopy of transition metal dichalcogenides heterobilayers grown by pulsed laser deposition*
11	Ines Delfino	*Effects of X-rays on mechanical and biochemical properties of nuclei extracted from neuroblastoma cells*
12	Chafic Fawaz	*High temperature superconducting oxychlorides: A light element model for cuprates*
13	Darine Ghoneim	*Sliding Charge Density Wave system observed by diffraction and ARPES measurements*
14	Erika Giangrisostomi	*Room-temperature hydrogen treatment to neutralize charged defects/impurities at cleaved transition metal dichalcogenide surfaces*
15	Roberto Gunnella	*Surface chemical structure of CrCl3 few layers flakes*
16	Feng He	*Theoretical study on graphdiyne based catalytic systems*
17	Hao Jiang	*A mechanistic study on the on-surface photo induced dehalogenative reaction with polarized light excitations*
18	Nuria Jimenez-Arevalo	*Alkali metal adsorption on highly aligned carbon nanotubes*
19	Adnan Khan	*Characterization and Proteomic Analysis of Magnetosomes for a Tailored Drug Delivery*
20	Eleonora Mari	*Hop extract can influence amyloid aggregation: focus on human insulin and amyloid beta peptide*
21	Bijal Mehta	*(ZnO)42 nanocluster: a novel visibly active magic quantum dot under first principle investigation*
22	Jonah Messinger	*Quantum-Coherent Nuclear Dynamics in the Solid State*

23	Hirokazu Otsuka	*Magnetism of high-entropy-type chromite spinel (Zn-Cd-Mn-Fe-Co-Ni)Cr 2 O 4*
24	Alessia Papalini	*In vitro assessment of ACE 2 pre-targeting capability of an innovative bimodular pharmaceutical product designed to fight SARS-Cov 2 infection.*
25	Vadim Plastovets	*Coherent dynamics of superconducting energy gap in the presence of a spin-splitting field*
26	Abdulrafiu Tunde Raji	*Computational study of spin interactions in vanadium-embedded monolayer silicene*
27	Yessica Roque Diaz	*Insights into the mechanism of SARS-CoV-2 main protease inhibitors*
28	Gideon Segev	*Ratchet based ion pumps for selective ion separations*
29	Giacomo Sesti	*Excitonic insulator phase in narrow-gap carbon nanotubes*
30	Sammar Tayyab	*Atomic Deuterium Bonding to Vertically Aligned Multi-Walled Carbon Nanotubes.*
31	Alperen Tugen	*Optical Detection of Excitonic Insulators in van der Waals Heterobilayers: Progress and Future Prospects*
32	Andrea Vezzosi	*Spin-orbit coupling of hole states in InP/GaSb core-shell nanowires*
33	Tatsuya Watanabe	*Magnetism of compositionally complex spinel Zn(V-Cr-Mn-Fe-Co) 2 O 4*
34	Zhiwen Zhu	*Scanning Probe Microscope Image Simulation and Analysis via A Generative Network-based framework*

Poster sessions will take place in building 26.

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Poster session II (September 5th)

1	Djebli Abdelghani	*anharmonicity effects on the thermodynamics properties of CoSb3: DFT Calculations*
2	Simona Achilli	*Theoretical and experimental characterization of sp-, sp2- carbon 2D networks obtained via on-surface synthesis*
3	Obed Alves Santos	*Simultaneous detection of SMR and current-induced SSE in Hematite/heavy-metal heterostructures*
4	Luigi Bana	*HiPIMS deposition of protective tungsten-based coatings on metallic substrates*
5	Ali Bentouaf	*Computational determination of structural, electronic, magnetic and thermodynamic properties of full Heusler compounds for spintronic applications*
6	Sujan Bhandari	*Synthesis of activated carbon from amla (Phyllanthus emblica) seeds as electrode material for supercapacitors*
7	Alla Bogoslovska	*Optical properties of cadmium sulfide nanowhiskers grown from gas phase*
8	Radovan Bujdk	*Ab initio study of novel Ni-O phase Ni2O5*
9	Mujdat Caglar	*CeO2 films with different dopants: Synthesis and structural, optical-characterization*
10	Nicol Canestrari	*Simulated Growth Of Multilayer Ag And Au Chiral Shells On Icosahedral Seeds*
11	Jorge Cervantes-Villanueva	*Strongly localized exciton states in layered BiI3: From bulk to monolayer*
12	Richa Cutting	*Active feedback control of SiN membrane resonator using microwave optomechanics.*
13	Sahil Dani	*Evolution of valence state of Ru metal ions in correlation with structural and electronic properties of double perovskite ruthenates; A2SmRuO6 (where A = Ba & Sr)*
14	Joe Depellette	*Strong actuation and nonlinear response of mass loaded membranes*
15	Diana Fabuov	*New open-framework PdO2 polymorphs predicted from ab initio*
16	Munavva Hussain	*Excited states under magnifying glass - adaptation of approaches based on density analysis for investigation of electronically excited molecular states*
17	Haseen Ullah Jan	*Elastic and Magnetic Properties of Fe4C from First principles*
18	Pavel Jelinek	*Multiradical -Conjugated Molecular Systems designed by e-e interaction and frustrated topology*
19	Ivo Konvalina	*Time-of-flight spectrometer for the analysis of graphene and other 2D materials*

20	Vinayak M Kulkarni	*Kondo effect in a non-Hermitian PT-symmetric Anderson model with Rashba spin-orbit coupling*
21	Priyanka Kumari	*Study of Ion Transportation, Glass Transition, and Effect of Temperature in Pectin Loaded [BMIM][PF6] Battery Electrolytes*
22	Felix Lpez Hoffmann	*Few electron correlations from ultrasharp metal needle tips triggered by femtosecond laser pulses*
23	Maria Barbara Maccioni	*Ab-initio study of magnetic properties of molecular rings*
24	Francesca Marson	*Magnetic properties of continuous and patterned SmCo films for integration in MEMS devices*
25	Paolo Moras	*FAPbBr3 Perovskite under Soft-X-Ray Irradiation: Evidence of Degradation and Self-Healing*
26	Vitalie Nedelea	*Tuning the nuclei-induced spin relaxation of localized electrons by the quantum Zeno and anti-Zeno effects*
27	Silvia Pieraccini	*A lipophilic G-quadruplex/hemin complex mimicking peroxidase activity*
28	Marcelo Silva Barreiro	*Quantum non-equilibrium excitons in two-dimensional semiconductors*
29	Sandra Simonetti	*Computational study of a cardiovascular polypill: Si-doped (10,0) SWCNT-captopril-aspirin*
30	Sahil Kumar Singh	*Chiral anomalies induced transport in Weyl metals in quantizing magnetic field*
31	Pinaka Pani Tummala	*Impact of precursor chemistry on energy band alignment of few layer MoS2 grown by AP-CVD at interface with SiO2.*
32	Dario Verna	*Hydrogen in metallic thin films and multilayers studied by electrochemical loading*
33	Misbah Yaqoob	*Spin-to-charge conversion in perpendicular magnetic anisotropy heterostructures*

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Poster session III (September 7th)

1	Arkadiusz Foks	*Production of various surface nanostructures in collisions of highly charged xenon ions with gold single crystal*
2	Daniela Barragn	*Underwater adsorption, adhesion and cohesion of protein films on solid surfaces*
3	Julia Blandine Bassila	*Computational investigations for the design of a Multimodal Innovative THeranostic nanoSystem (MITHoS)*
4	Rim Roukya Belhoula	*Ab initio study of Electronic and Optical properties of a DTM MXenes Nitride*
5	Frederick Bernardot	*The coherent spin dynamics of electrons and holes in CH3NH3PbI3 polycrystallin films: an unexpected anisotropic behaviour*
6	Mokhtar Berrahal	*Comprehensive study on the thermoelectric properties of the Filled Skutterudite ThFe4P12 under the Effect of the Pressure*
7	Liudmyla Bludova,	*Fluctuation conductivity and pseudogap of YBa2Cu3O7- single crystals in the course of long-term aging*
8	Alessandro Bossi	*Time Domain Diffuse Raman Spectrometer Based on Single Pixel Detection*
9	Silvia Bressan	*Timing dependence on the pulse train characteristics of the electrical activity of a nanostructured metallic memristive network*
10	Yasemin Caglar	*Physical Characterization of sol gel derived CeO2 films*
11	Stefano Calcaterra	*Germanium quantum wells for spin qubit applications*
12	Alberto Calloni	*A comprehensive study of electrochemical intercalation in HOPG with HClO4 and H2SO4 electrolytes by photoemission spectroscopy and atomic force microscopy*
13	Alice Cartoceti	*In situ SERS mapping of polymeric nanocomposite films as a way to monitor the thermal behaviour of size- and termination-selected carbon atomic wires*
14	Luca Casanova	*Investigating the activation of passive metals by a combined in-situ AFM and Raman spectrocsopy system: a focus on titanium*
15	Leonardo Castelano	*Optimal control theory applied to adiabatic quantum computing*
16	Michele catacchio	*Early detection of Xylella fastiosa in infected plants sap with an ultrasensitive electronic biosensor*
17	Jorge Cervantes-Villanueva	*Calculation of self-trapped exciton energy in 2D TEASnX3(X = Br, I) and 0D TEASnY3(Y = Cl, Br) perovskites*
18	Federico Cesura	*InGaN Growth by PAMBE in the Intermediate Composition Regime on Silicon*
19	Davide Decastri	*The role of thermic effects in Resistive Switching phenomena in nanostructured materials for neuromorphic applications*

20	Safarali Dzhumanov	*Signatures of room-temperature superconductivity emerging in two-dimensional domains within the new Bi/Pb-based ceramic cuprate superconductors*
21	Marco Faverzani	*FTIR characterization of RF-sputtered tungsten oxide thin films for plasmonic applications*
22	Claudia Filoni	*Sulphate adsorption on vicinal Cu (111) electrode surfaces studied by EC-STM and EC-AFM*
23	Alice Margherita Finardi	*A novel apparatus for optical and time-resolved Raman spectroscopy: first results on bulk and monolayer MoS2*
24	Michele Gherardi	*Scalable dielectric Mie Resonators obtained by solid state dewetting*
25	Eugenio Gibertini	*Insight into the Zn plating on Ti3C2 MXene by EC-AFM*
26	Rohit Gupta	*Nanoparticle-based Memristors for Oscillatory Response in Brain-inspired Systems*
27	Alberto Hijano	*Microwave-Assisted Thermoelectricity in S-I-S' Tunnel Junctions*
28	Ottavia Jedrkiewicz	*Femtosecond laser writing of microstructures in diamond for quantum sensing*
29	Mourad Kaddeche	*Numerical Simulation of PIN photodiodes based on GaN/ InGaN/ GaN Heterojunction*
30	Florian Khne	*Ultrafast Electron Dynamics of the c(4 x 2) reconstructed Si(100) surface through Time-Resolved Two-Photon Photoemission Spectroscopy*
31	Marco Lamperti	*Testing mesoscopic twin-beam states for underwater quantum communication*
32	Laurent Legrand	*Investigations on the exciton-phonon couplings in CsPbCl3 nanocrystals*
33	Lucie Leguay	*Theoretical optimization of the design of AlGaN UV LED devices using evolutionary algorithms*
34	Maria Lepore	*An FT-IR spectroscopy study of the X-ray radiation effects on lipids extracts from HepG2 cells.*
35	Maciej Lis	*Controlling Berry curvature dipole with an in-plane magnetic field.*
36	Dmitrii Lvov	*Experimental Realization of Qubit Thermometry*
37	Lszl Makai	*Spectroscopic ellipsometric investigations on free liquid surfaces in the mid-IR wavelength range*
38	Saralea Marino	*Investigating functional alterations in dopaminergic neurons caused by PFAS contaminants*
39	Gianluca Martini	*Arithmetic Logic Units made from Receptrons: an unconventional approach to complex data processing*
40	Marco Menegazzo	*A combined Raman spectroscopy and atomic force microscopy system for in-situ and real time measures in electrochemical cells*
41	Seyedalireza Mirbagheri	*Modification of Cu current collector by patterned Ag coating for AFLMBs*
42	Chang-Youn Moon	*Effects of orbital selective dynamic correlation on the spin susceptibility and superconducting symmetries in Sr2RuO4*
43	Manuel Moratalla Martn	*Preparation and characterization of Bi-Sb alloys as potential amorphous topological superconductors*
44	Alfonso Munoz	*Ab initio study of ScAlO3 perovskite under high pressure*

45	Alessia Muroni	*Investigation of 5-Fluorouracil Anticancer Drug by DFT calculations and CarParrinello Molecular Dynamics simulations*
46	Giacomo Nadalini	*Influence of the forming process on the structural and electrical properties of nanostructured Au resistive switching networks*
47	Sara Navarro	*Numerical study of quantum dots and superlattices induced in two-dimensional materials.*
48	Wojciech Nowak	*Enhanced superconducting critical parameters in a new high-entropy alloy Ti33Nb34Hf8Zr14Ta11*
49	Marek Nowicki	*Adsorption of Cu on Au(110): in situ EC-STM and CV investigations*
50	Riku Okumura	*Substitution effect on magnetism of Laves-phase compound CeFe2*
51	Francesca Peverini	*Spectroscopy characterization of amorphous hydrogenated silicon as sensitive material for medical application*
52	Filippo Profumo	*Memristive planar devices based on a tunable nanostructured Au/ZrOx composite film*
53	Wilson Reino	*Wave field and propulsion mechanism of capillary surfers*
54	Silvia Maria Cristina Rotondi	*Coupling SE and QCM-D for label-free detection of oligonucleotides sequences*
55	Manaswini Sahoo	*Investigation of the intrinsic magnetic topological insulator candidate by NMR and SR*
56	Marco Salvi	*High throughput and systhematic investigation of materials for photoelectrochemical water splitting*
57	Giorgio Senesi	*Identification and stratigraphy of archaeological metallic artifacts by handheld laser-induced breakdown spectroscopy and portable X-ray fluorescence spectroscopy*
58	Polina Sheverdyaeva	*Dirac nodal lines and topological surface states in hcp Yb*
59	Artur Tuktamyshev	*Droplet nucleation on a vicinal surface*
60	Bianca Turini	*Towards the quantum delocalization of a Carbon nanotube*
61	Matteo Vercelli	*Studies of nanotechnological tools for ancient wood conservation*
62	Pauli Virtanen	*Nonlinear -model for disordered systems with spin-orbit coupling*
63	Stavroula Vovla	*Development Of A Soft X-Ray Spectroscopy Beamline Based On Hhg For Studying Ultrafast Dynamics In Advanced Materials, With A Focus On Perovskite-Based Systems*
64	Paolo Zentilini	*Graph neural networks trained with reinforcement learning techniques for condensed matter physics*

Plasma physics poster session (room 26.1.6)

This special poster session will take place in Room 26.1.6 during the 5 sessions of MC_49: Italian plasma physics I that will also take place in the same room.

1	Gabriele Alberti	*Modelling plasma-wall interaction in a tokamak: the helium plasma case in Asdex UpGrade*
2	Lorenzo Aucone	*Predictive transport studies of the DTT full power scenario using different fuelling and heating strategies*
3	Tommaso Barberis	*Axisymmetric modes driven by fast ions in tokamak plasmas*
4	Luca Bonalumi	*Analysis of the role of the ion polarization current on the onset of the neoclassical tearing mode in disrupting plasmas.*
5	Francesco Cani	*Plasma-Wall Interactions (PWI) through MonteCarlo code*
6	Giuseppe Consolini	*Joint-Multifractal Analysis of Magnetic and Plasma Parameters in Solar Wind.*
7	Daniele Del Sarto	*Phase-space filamentation and kinetic heating in collisionless plasmas*
8	Alessandro Fassina	*Proto-Sphera upgrade: overview of main optical diagnostics*
9	Francesco Filippi	*ProtoSphera: overview on interferometric diagnostics results in last campaigns*
10	Francesco Gatti	*Innovative proton spectrometer for laser-plasma accelerators*
11	Giancarlo Maero	*Forced and free dynamics of fluid V-states explored through trapped magnetized nonneutral plasmas*
12	Alessandro Maffini	*Plasma modeling of a Microwave Electrothermal Thruster for plasma-based space propulsion*
13	Chiara Marchetto	*A comparison between 2D and 3D asymmetric collisionless magnetic reconnection*
14	Massimo Materassi	*Metriplectic formalism in Plasmas*
15	Francesco Mirani	*Target production for particle acceleration from laser interaction with near-critical nanostructured plasmas*
16	Fabio Mombelli	*Numerical investigation of negative triangularity L-mode plasmas through the SOLPS-ITER code*
17	Giuseppina Nigro	*The Importance of Convective Heat Transport in Magnetic Reversals of Fully-convective Stars*
18	Oreste Pezzi	*Energy dissipation and phase-space complexity in turbulent nearly-reversible plasmas*
19	Francesco Pucci	*Properties of plasma turbulence within cometary plasma environments*
20	Davide Rigamonti	*High-resolution 14 MeV neutron spectroscopy measurements in DT plasmas at JET with diamond detectors*
21	Sergio Servidio	*Astrophysical Plasma Turbulence in Relativistic Regimes*
22	Lovepreet Singh	*Influence of Runaway Electrons on Magnetic Reconnection in Fusion Relevant Plasmas*

23	Luca Sorriso-Valvo	*Radial evolution of the energy and cross-helicity cascades in space plasma turbulence*
24	Luca Spinicci	*Numerical verification of resistive-wall boundary conditions in the SPECYL and PIXIE3D magneto-hydrodynamic codes for fusion plasmas*
25	Emanuele Tassi	*Hamiltonian reduced hybrid, drift-fluid and gyrofluid models*
26	Davide Vavassori	*High Power Impulse Magnetron Sputtering of tungsten: a modelling and experimental investigation*
27	Gaetano Zimbardo	*Non-Markovian pitch-angle scattering as the origin of particle superdiffusion in magnetized plasmas*

Notes