

Program for The 4th EMN Meeting on Computation and Theory

Sept 3 - 7, San Sebastian, Spain

Monday, Sept 3

Registration

Time: 14:00~17:00

Tuesday morning, Sept 4

Room A

Opening: 8:55-9:00

Session: DFT I Chair: Jianmin Tao

9:00-9:25	A01: Linear response in topological semimetals	Yan Sun Max Planck Institute for Chemical Physics of Solids, Germany
9:25-9:50	A02: Optical spectra from first principles: fundamentals, functionals, and numerics	Arjan Berger Université Paul Sabatier, France
9:50-10:15	A03: Structural modelling for $(\text{Ag}_2\text{Te})_x(\text{AsTe})_{1-x}$ glasses by a combination of reverse Monte Carlo modelling and density functional theory	Shuta Tahara University of the Ryukyus, Japan
10:15-10:30	Coffee Break	
Session: General I Chair: Mark Eberhart		
10:30-10:55	A04: On the inclusion of dissipative effects in clusters and molecule	Eric Suraud LPT Toulouse - Université Paul Sabatier, France
10:55-11:20	A05: Four-component coupled cluster study of small actinide species: ground and excited state properties	Pawel Tecmer Nicolaus Copernicus University in Toruń, Poland
11:20-11:45	A06: Molecules in Strong Magnetic Fields	Sangita Sen University of Oslo, Norway
11:45-12:10	A07: A simplified solution of Coupled Cluster equations by utilization of scaled MP2 amplitudes.	Szymon Śmiga Nicolaus Copernicus University, Poland

Tuesday afternoon, Sept 4		
Room A		
Session: DFT II Chair: Yan Sun		
14:00-14:25	A08: Kinetic Energy Functionals for Orbital-Free Density Functional Theory	Lucian Constantin Istituto Italiano di Tecnologia(ITT), Italy
14:25 -14:50	A09: TBD	Jianmin Tao Temple University, USA
14:50 -15:15	A10: Density functional electric response properties of atoms and molecules in Cartesian grid	Amlan Kusum Roy Indian Institute of Science Education and Research (IISER)-Kolkata Mohanpur Campus, India
15:15-15:40	A11: Manipulation of the two- and four-photon Hong-Ou-Mandel interference	Polina Sharapova University Paderborn, Germany
15:40-15:55	Coffee Break	
Session: General II Chair: Eric Suraud		
15:55-16:20	A12: Is there a preferred charge density reference frame?	Mark Eberhart Colorado School of Mines, USA
16:20-16:45	A13: Atomic / Ionic Radius as Mathematical Limit of System Energy Evolution	Paweł Szarek University of Warsaw, Poland
16:45-17:10	A14: A stochastic equation for tensile fracture of polymeric solids	Koh-hei Nitta Kanazawa University, Japan
17:10	Dinner Social	

**Wednesday morning, Sept 5
Room A**

Session: DFT III Chair: Robert Gyepes

9:00-9:25	A15: Pincer Metal Catalysts for Green Chemistry	Albert Poater IQCC, University of Girona, Spain
9:25-9:50	A16: Effect of van der Waals interaction on band mobility of organic semiconductors	Hajime Kobayashi Advanced Technology Research Division, Sony Corporation, Japan
9:50-10:15	A17: Gradient-dependent exchange-correlation kernel for materials optical properties	Aleksandr Terentjev Donostia International Physics Center (DIPC), Spain
10:15-10:30	Coffee Break	
Session: Molecular Electronics Chair: Albert Poater		
10:30-10:55	A18: Computational Studies of Unusual Bonding Modes in Complexes with Transition Metals	Robert Gyepes Charles University, Czech Republic
10:55-11:20	A19: From tight-binding Hamiltonians to low-temperature thermoelectric properties of bilayer graphene	Adam Rycerz Jagiellonian University, Poland
11:20-11:45	A20: Charge Transport in Lamellar Structure of Linear Conjugated Polymers	Petr Toman Ústav makromolekulární chemie AV ČR, v.v.i. (ÚMCH), Czech Republic
11:45-12:10	A21: Modeling ground and excited states with germinal-based approaches	Katharina (Kasia) Boguslawski Nicolaus Copernicus University, Poland

Wednesday afternoon, Sept 5		
Room A		
Session: Molecular Dynamics and its Applications		Chair: Lucian Constantin
14:00-14:25	A22: Critical Vaporization of MgSiO ₃ : A First Principles Molecular Dynamics Simulations	Bing Xiao Xi'an Jiaotong University, China
14:25 -14:50	A23: Large-Scale DFT Molecular-Dynamics Simulation of Organic Molecules@SWCNT for Li-ion Battery Electrode	Shuji Ogata Nagoya Institute of Technology, Japan
14:50 -15:15	A24: Hybrid Quantum-Classical Dynamics Simulation of Moisture-Induced Weakening of Metal-Resin Adhesion	Shuji Ogata Nagoya Institute of Technology, Japan
15:15-15:40	A25: Effect of alkyl branches on the thermal stability of quaternary ammonium cations	Yong Nam Ahn Corning Technology Center Korea, Korea
15:40-16:05	A26: New Dichalcogenides as Crosslinks for Efficient Self-Healing Materials	Fernando Ruiperez POLYMAT, University of the Basque Country UPV/EHU, Spain
16:05-17:00	Poster (&Coffee Break)	
	P01: DFT modeling of Redox Potentials of full Organic Dyes for Dye-Sensitized Solar Cells	Sanaz Mohammadpourasl University of Florence, Italy
	P02: A meta-GGA level screened range-separated hybrid functional by employing short range Hartree-Fock with a long range semilocal functional	Subrata Jana National Institute of Science Education and Research, India
	P03: Diastereoisomerism in platinum(II) phosphino- and aminothioloato hydrido complexes	Alfons Polo University of Girona, Spain
	P04: Characterization of air-saturated porous materials using ultrasonic reflected waves - frequency approach	Mustapha Sadouki Université Djilali Bounaama de Khemis-Miliana, Algeria
17:00PM	Dinner Social	

Thursday morning, Sept 6
Room A

Session: DFT IV Chair: Nina P. Gritsan

9:00-9:25	A27: Defect Formation Energies Due to Hydrogen-dopants on Interstitial Sites in Uranium Intermetallic Compounds	Bun Tsuchiya Meijo University, Japan
9:25-9:50	A28: Mechanisms of Metallocene Catalysts Activation in Ziegler-Natta Type Processes	Tatyana V. Tyumkina Institute of Petrochemistry & Catalysis, RAS, Russia
9:50-10:15	A29: Theoretical challenges and issues for the design of high energy density material for Li-ion batteries	Matthieu Saubanère Institut Charles Gerhardt Montpellier, France
10:15-10:30	Coffee Break	
Session: General III Chair: Matthieu Saubanère		
10:30-10:55	A30: Combination Law for Electron Damping in Multilayer Thin Metal Films	Stefano A. Mezzasalma Institut Ruđer Bošković, Croatia
10:55-11:20	A31: On the optimal basis set for electron dynamics in strong laser fields : the case of H ⁺ 2	Eleonora Luppi Université Pierre et Marie Curie - CNRS, France
11:20-11:45	A32: Theoretical Study on the Charge Transfer Mechanism at Donor/Acceptor Interfaces	Koichi Yamashita The University of Tokyo, Japan
11:45-12:10	A33: TBD	Subhasish Mandal Yale University, USA

Thursday afternoon, Sept 6		
Room A		
Session: DFT V & Materials Predictions		Chair: Eduardo Fabiano
14:00-14:25	A34: Electronic structure, spectroscopy and magnetic properties of nitroxide radicals, diradical and their complexes with transition metals: ab initio and DFT study	Nina P. Gritsan Novosibirsk State University, Russia
14:25 -14:50	A35: Boron, the most multi-structure material ever: a first principles study	Nevill Gonzalez Szwacki University of Warsaw, Poland
14:50 -15:15	A36: Materials Characteristics Prediction: Case of Stainless Steels	Goran Vukelić University of Rijeka, Croatia
15:15-15:40	A37: First-principles approach of the properties of materials for production and storage of energy	Philippe Baranek EDF R&D, Ile – de – France Photovoltaic Institut (IPVF), France
15:40-15:55	Coffee Break	
Session: DFT VI		Chair: Eric Suraud
15:55-16:20	A38: Approximate functionals based the adiabatic connection applied to main group, non-covalent, and metals chemistry	Eduardo Fabiano Istituto Italiano di Tecnologia, Italy
16:20-16:45	A39: Modelling of adsorption and intercalation of hydrogen on/into tungsten disulphide multilayers and multiwall nanotubes	Jose Ignacio Martinez Ruiz Instituto de Ciencia de Materiales de Madrid, CSIC, Spain
16:45-17:10	A40: Orbital-dependent improvements to density-functional approximations: Applications of the FLO-SIC method	Torsten Hahn Technische Universität Bergakademie Freiberg, Germany
17:10-17:35	A41: The Linear Response Function in Conceptual DFT : recent Insights and Applications	Paul Geerlings Vrije Universiteit Brussel - VUB, Belgium
17:35	Dinner Social	