

PIERS 2015 Prague

Progress In Electromagnetics Research Symposium

Program

July 6–9, 2015
Prague, CZECH REPUBLIC

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Session 3A9
Density Functional Theory and Its Applications to Nanomaterials

Wednesday AM, July 8, 2015
Room I

Organized by Jeng-Da Chai

 Chaired by Jeng-Da Chai

08:00 Thermally-assisted-occupation Density Functional Theory (TAO-DFT)
invited
Jeng-Da Chai (National Taiwan University, Taiwan);

08:20 Ensemble Formalism of the Orbital-free Density Functional Theory
invited
Agnes Nagy (University of Debrecen, Hungary);

08:40 Plasmon Excitations in Na Nanoparticles and Graphene Studied by Time-dependent Density Functional Calculations
invited
Guang-Yu Guo (National Taiwan University, Taiwan);

09:00 First-principles Simulation of Real-time Electronic Dynamics on Surfaces of Materials
invited
Rulin Wang (Beijing Computational Science Research Center, China); Dong Hou (University of Science and Technology of China, China); Xiao Zheng (University of Science and Technology of China, China);

09:20 Application of Density Functional Theory Combined with Lippmann-Schwinger Equation to Thermoelectric Properties in Atomic/Molecular Junctions from First Principles
invited
Yu-Chang Chen (National Chiao Tung University, Taiwan);

09:40 Exchange-correlation Functionals from the Strongly-interacting Limit of DFT
invited
Francesc Malet Giralt (Vrije Universiteit Amsterdam, The Netherlands); A. Mirtschink (Vrije Universiteit Amsterdam, The Netherlands); Christian B. Mendl (Technische Universitat Munchen, Germany); J. Cremon (Lund University, Sweden); S. M. Reimann (Lund University, Sweden); P. Gori-Giorgi (Vrije Universiteit Amsterdam, The Netherlands);

10:00 **Coffee Break**

10:20 Spin-polarized Transport through Single-molecule Magnetic Junctions
invited
Chao-Cheng Kaun (Acad Sinica, Taiwan);

10:40 Theoretical Investigations on Band Gaps of Extended Systems
invited
Takao Tsuneda (University of Yamanashi, Japan);

11:00 The Effect of Nitrogen-doping and Mechanical Strain on the Enhanced Visible Light Absorption of Anatase TiO₂
invited
Chin-Lung Kuo (National Taiwan University, Taiwan);

11:20 Simulating Nuclear Quantum Effects on the Fly with DFT
invited
Jian Liu (Peking University, China);

11:40 Application of Graphene Dopants to Anodes of Dye-sensitized Solar Cells
invited
Yu-Chao Wang (National Chi Nan University, Taiwan); Chun-Pei Cho (National Chi Nan University, Taiwan);

Session 3A_10
SC5: Inverse Scattering Methods and Applications for NDE

Wednesday AM, July 8, 2015
Room J

Organized by Takashi Takenaka, Federico Viani

 Chaired by Martin Karl Norgren, Toshifumi Moriyama

08:20 Microwave Tomography Technique for Concrete Diagnosis
Zhi Qi Meng (Fukuoka University, Japan);

08:40 DC Impedance Tomography in Anisotropic Media
Stewart Greenhalgh (Institute of Geophysics, ETH Zürich, Switzerland); Tim Wiese (Santos Ltd., Australia); Bing Zhou (The Petroleum Institute, United Arab Emirates); Mark Greenhalgh (Thumping Geophysics, Australia); Laurent Marescot (Risk Management Solutions, Switzerland);

09:00 Non-contact Measurements of Power-line Currents Using the External Magnetic Field
Fatemeh Ghasemifard (KTH Royal Institute of Technology, Sweden); Markus Johansson (KTH Royal Institute of Technology, Sweden); Martin Karl Norgren (KTH Royal Institute of Technology, Sweden);

09:20 Auto-focused Imaging of a Moving Target Using an Ultra-wideband Array Radar
Takuya Sakamoto (Kyoto University, Japan); Toru Sato (Kyoto University, Japan); Pascal J. Aubry (Delft University of Technology, The Netherlands); Alexander Georgievic Yarovoy (Delft University of Technology, the Netherlands);