



Reception 19h30~, 15th March
at room "Matsukaze"

Session 1:

Dynamic compression & new wave (Day 1 Morning)

Chair R. Cauble

- “**Plenary talk:** Outstanding questions in shock-produced warm dense matter”, A. Ng (Univ. British Columbia) 9h00-9h40
- “Intense Shock Waves for Generation of Strongly Nonideal Plasma”, V. Fortov (IHEDP) 9h40-10h05
- “GGG Hugoniot at TPa pressures”, T. Mashimo (Kumamoto Univ.) 10h05-10h30

Coffee break

Chair R. More

- “Conductivity Measurements of Multi-Shock Compressed Deuterium”, R. Rygg (LLNL) 11h00-11h25
- “Extreme Off-Hugoniot Generated by Reverberating Shock Compression”, N. Ozaki (Osaka Univ.) 11h25-11h50
- “Kinetic Effects in the Deformation of High-Pressure Low-Temperature States”, R. Smith (LLNL) 11h50-12h15

Session 2: WDM physics & model (Day 1 Afternoon)

Chair J. Clerouin

- “**Plenary talk:** Electrodynamics and Emission of Visible Light by Warm Dense Matter”, R. More (LBNL) 14h00-14h40
- “Multiply Inner-Shell Excited States of Solids: Cluster Calculations for Lithium”, H. Kitamura (Kyoto Univ.) 14h40-15h05
- “Variational Hard-Sphere Ab-Initio Molecular Dynamics Approach”, G. Faussurier (CEA) 15h05-15h30

Coffee break

Chair G. Gregori

- “First Principles Study of Non-Equilibrium Electron Distribution and Its Impact on the Ion Dynamics of Gold and Aluminum”, T. Ogitsu (LLNL) 16h00-16h25
- “X-ray Scattering Spectra Interpreted by DFT-MD”, D. Gericke (Univ. Warwick) 16h25-16h50
- “Ab Initio Calculation of X-Ray Absorption Spectra for Warm Dense Aluminum”, V. Recoules (CEA) 16h50-17h15

Session 3:

WDM new scope & applications (Day 2 Morning)

Chair R. Kodama

- “Improvement in Durability of Metallic Components by Laser Shock Processing”, Y. Sano (TOSHIBA) 9h00-9h25
- “Theoretical Modelling and Experimental Characterization of Effects Induced in Metallic Materials by ns-Pulse, GW/cm²-Level Laser Shock Processing”, J. Ocana (UPM) 9h25-9h50
- “Atmospheric Reentry Spacecraft Environment and Heatshield Development”, T. Abe (JAXA) 9h50-10h15

Coffee break

Chair T. Sekine

- “Quantum Cooperative Phenomena in Photoexcited Insulators: Electron-Hole Plasma and Exciton Gas”, T. Ogawa (Osaka Univ.) 10h45-11h10
- “Synthesis of High-Pressure Phases of Condensed Matter Using Femtosecond Laser-Driven Shock Wave”, T. Sano (Osaka Univ.) 11h10-11h35
- “Spallation by Ultra-Short Laser Driven Shock in Aluminum”, J-P Cuq-Lelandais (LCD) 11h35-12h00
- “MD Study of Femtosecond Laser Ablation and Spallation of Metals With Use of Different Interatomic Potentials”, K. Nishihara (ILE) 12h00-12h25
- Excursion 14h00 ~
- Poster of all 18h30 ~

Session 4:

Photo-ionized WDM & Isochoric heating (Day 3 Morning)

Chair A. Ng

- “Optical Frequency Response of Warm Dense Matter for Various Materials”, H. Yoneda (UEC) 9h00-9h25
- “Electron Dynamics in Warm Dense Gold Under Selective Excitation”, Y. Ping (LLNL) 9h25-9h50
- “Simulations of the Radiation Emission of Autoionising Hole States of Al Induced by XUV Free Electron Laser Radiation”, E. Galtier (UPMC) 9h50-10h15
- “X-ray Device Studies Using High-Energy Density Plasma and VUV-FEL Generated WDM (Tentative)”, Y. Inubushi (Osaka Univ.) 10h15-10h40

Coffee break

Chair H. Yoneda

- “Laser-Accelerated Energetic Protons for Isochoric Heating of Matter”, J. Fuchs (LULI) 11h10-11h35
- “Prospects of Warm Dense Matter Research at the FAIR Facility at Darmstadt and LHC at CERN: the HEDgeHOB Collaboration”, N. Tahir (GSI) 11h35-12h00
- “Experiments and Ab-Initio Simulations of Expanded Metals in the Warm Dense Matter Regime.”, J. Clerouin (CEA) 12h00-12h25

Session 5: Diagnostics for WDM (Day 3 Afternoon)

Chair G. Faussurier

- “**Plenary talk:** Dense Plasma Correlations and Experimental Tests of Structure Factors”, G. Gregori (Oxford) 14h00-14h40
- “Soft X-Ray Thomson Scattering in Warm Dense Matter at FLASH”, S. Toleikis (DESY) 14h40-15h05
- “Experimental Investigation of Inelastic X-Ray Scattering from Shock-Heated and Compressed Deuterium”, S. Regan (LLE) 15h05-15h30

Coffee break

Chair J. Fuchs

- “Ultrafast X-ray Absorption Spectroscopy of Warm Dense Carbon”, P. Heimann (LBNL) 16h00-16h25
- “Ultra-Fast XANES as Diagnostic of WDM Local Structure”, M. Harmand (CELIA) 16h25-16h50
- “Hard X-rays as Diagnostic Tool for Dense Matter”, E. Brambrink (LULI) 16h50-17h15

**Banquet 18h00~, 18th March
at room “Fuji”**

Session 6:

Planetary and geophysical sciences (Day 4 Morning)

Chair R. Smith

- “**Plenary talk:** Compression of Silicate and Metallic Liquids at Ultrahigh Pressure: Their Importance in Earth Science”, E. Ohtani (Tohoku Univ.) 9h00-9h40
- “Numerical and Experimental Study of Isentropic Compression by Laser Irradiation”, T. Vinci (CEA) 9h40-10h05
- “Forsterite Hugoniot in the Warm Dense Matter Region”, T. Sekine (NIMS) 10h05-10h30

Coffee break

Chair M. Koenig

- “Spectroscopic Observations of a Liquid-Vapor Phase Change of Silicate in The Warm Dense Matter Region”, K. Kurosawa (Univ. Tokyo) 11h00-11h25
- “Progress in the Measurements on He/H₂ Systems in Pre-Compressed Targets : Improved Techniques and New Insights from Data”, S. Brygoo (CEA) 11h25-11h50
- “Nonmetal-to-Metal Transition in H-He Mixtures - Implications for Giant Planets”, B. Holst (Rostock) 11h50-12h15
- **Summary and conclusions** 12h15-12h45