

ICUSD 2017 Scientific Program

Tuesday, 5 December 2017

12:00 Registration

Opening Session

14:00 Welcome (prof. A. Franciosi, C. Masciovecchio)

Session A: Novel photon coherent sources and methods (chair G. De Ninno)

14:30 Giulia F. Mancini - Revolutionary new nano-imaging and coherent scattering: harnessing the power of short wavelength EUV light

15:10 Philippe Jonnard - Stimulated emission in MgO following irradiation by EUV FEL pulses at FERMI

15:40 Primož Rebernik Ribič - Generation of intense femtosecond optical vortices in the extreme-ultraviolet

16:10 coffee break + POSTER SESSION

Session B: Advances in ultrafast electron sources (chair M. Kiskinova)

17:20 Ralph Ernstofer - Accessing microscopic coupling in solids with momentum resolving ultrafast techniques

18:00 Yuya Morimoto - Microscopy and diffraction with attosecond electron pulse trains

18:30 Henrike Müller-Werkmeister - Direct observation of reaction dynamics by femtosecond electron diffraction

19:00 Christoph Hauf - Soft-mode driven ferroelectric switching mapped by ultrafast x-ray diffraction

Wednesday, 6 December 2017

Session C: Ultrafast multidimensional spectroscopies (chair: F. Parmigiani)

8:30 Peter Hamm - 2D-IR spectroscopy at its best: structure and dynamics of molecules immobilized at solid/liquid surfaces

9:10 Hugo Marroux - Combining attosecond EUV pulses and shaped near infrared pulses: Multidimensional 4 wave mixing spectroscopy

9:40 Federico Cilento - Time-resolved XUV photoemission: a new clue for understanding the ultrafast dynamics in copper oxides

10:10 Jonathan Tollerud - Multidimensional spectroscopy with weak-pulses reveals unexpectedly large coherence length of excitons in a quantum well

10:40 coffee break

Session D: Structural dynamics in biomolecular systems (chair F. Capotondi)

11:00 John Spence - Imaging dynamic of radiation-sensitive molecules

11:40 Heinrich Schwoerer - Photo-induction of the insulator to metal transition in the organic mono-crystal Cu(Me,Br - DCNQI)₂ as studied by UED

12:10 Jan Helbing - Ultrafast deep-UV 2D and transient CD-spectroscopy of peptide backbone conformation

12:40 lunch

Session E: Solid state structural dynamics (chair F. Bencivenga)

14:00 Giovanni Vanacore - Unraveling the ultrafast dynamics of spatially confined phonons and plasmons in low-dimensional nanosystems

14:40 Emmanuelle Jal - Structural dynamics during laser-induced ultrafast demagnetization

15:10 Christopher Nicholson - Ultrafast dynamics of bands and bonds during a photo-induced structural phase transition at a surface

15:40 coffee break

Session F: EUV and X-ray nonlinear spectroscopies (chair M. Coreno)

16:00 Filippo Bencivenga - EUV-transient grating experiments at the nanoscale

16:40 Royce Lam - Soft X-ray second harmonic generation as an interfacial probe

17:10 Thomas Northey - Ultrafast X-ray absorption spectroscopy using direct quantum dynamics

17:40 visit to FERMI

20:15 Social Dinner

Thursday, 7 December 2017

Session G: Ab-initio simulations of nonequilibrium condensed matter (chair E. Princi)

9:00 Davide Sangalli - Pump and probe experiments from first principles

9:30 Pietro Tozzi - Confined plasmons at extreme temperatures: theory and possible experiment

ROUND TABLE

10:00 Round Table

10:40 coffee break

Session H: Magnetism and strongly correlated systems (chair: G. Ghiringhelli)

11:00 Michele Buzzi - Pressure tuning of light-induced superconductivity in K₃C₆O

11:40 Alexandre Marciniak - Vibrational control of d-d transitions in the model cuprate CuGeO₃

12:10 Francesca Giusti - Optical control of the superconducting gap in optimally doped B2212 with mid-infrared pulses

12:40 Ganesh Adhikary - Orbital-dependent ultrafast electron dynamics in Fe-pnictide superconductors

13:00 lunch

Session I: Femtochemistry in biomolecular systems (chair: F. Cilento)

14:20 Albert Stolow - Ultrafast nonadiabatic molecular dynamics via time-resolved valence and inner shell spectroscopies

15:00 Maria Ekimova - Hydrogen bonding structure of aqueous ammonia and ammonium probed with IR and X-ray spectroscopy

15:30 Carino Ferrante - Direct observation of ultrafast processes in conjugated molecules through femtosecond stimulated Raman spectroscopy

16:00 Kyle Wilkin - Photodissociation dynamics of 1,2-diiodotetrafluoroethane captured with femtosecond gas phase electron diffraction

16:30 CLOSING REMARKS