

Workshop on New Opportunities in Ultrafast Science using X-rays

April
Embassy Suites Napa Valley, Napa, CA

Agenda

Sunday, April

- . : PM Registration in Chardonnay Ballroom, Wine and cheese reception in the Atrium
- . : R. Falcone UC Berkeley Characteristics of Ultra fast X ray Sources
- . : A. Nilsson SSRL X ray Spectroscopy
- . : S. Sinha UCSD X ray Diffraction

Monday, April

- . : AM Breakfast served in the Atrium
- . : H.A. Padmore ALS/LBL Welcome
- . : C. V. Shank LBNL UCB Introduction

Morning Session: Structural Dynamics

- . : K. Nelson MIT Session Chair
- . : D. von der Linde Institut für Laser und Plasmaphysik, Universität Essen
Structural dynamics explored by time resolved X ray diffraction
- . : S. Teichert MPI, Göttingen
Photo induced Transient Structural Changes of Chromophores Probed by
Time resolved X ray Diffraction
 - . : Break
 - . : A. Cavalleri LBNL
Photo induced Phase Transition Dynamics in VO probed by Femtosecond X rays
 - . : G. Ruocco INFN, Rome
Lunch
 - . : PM Afternoon Session: Posters
 - . : PM Wine and cheese reception in the Atrium

Evening Session: Magnetism

- . : J. Stohr Stanford Session Chair
- . : H. Siegmann Stanford Linear Accelerator Center, Stanford University
Magnetization Dynamics with X Rays
- . : A. Fontaine CNRS, Grenoble
- . : D. Awschalom UC Santa Barbara
Manipulating Quantum Information with Semiconductor Spintronics

Tuesday, April

: AM Breakfast served in the Atrium

Morning Session: Chemical Dynamics

M. Wulff ESRF Session Chair

R. Neutze *Dept of Molecular Biotechnology, Chalmers Univ of Technology, Sweden*
Potential for Visualising Ultrafast Structural Changes in Solution

R. Hochstrasser *U. Pennsylvania*

Break

S.R. Leone *JILA, National Institute of Standards and Technology, Univ. of Colorado*
Femtosecond Soft X Ray Pump Probe Dynamics

P. Barbara *U. Texas Austin*

PM Lunch

PM Afternoon Session: Posters

PM *Wine and cheese reception in the Atrium*

Evening Session: Electron Dynamics

C. Harris *UC Berkeley Session Chair*

H. Dürr *BESSY, Berlin* Femtosecond Magnetism

S. Mukamel *Department of Chemistry, University of Rochester*
Ultrafast Nonlinear X ray Spectroscopy of Molecules: Theoretical Challenges

M. Neeb *Forschungszentrum Jülich*

Pump probe photodetachment spectroscopy on small transition metal clusters

Wednesday, April

: AM Breakfast served in the Atrium

Morning Session: Biology

K. Moffat *U. Chicago Session Chair*

J-L Martin *Ecole Poly. ENSTA*

P. Anfinrud *NIH* Watching Proteins as they Function: Real Time Observations at Atomic Resolution using Picosecond X ray Crystallography

Break

J. Hajdu *U. Uppsala*

H. Frauenfelder *Center for Nonlinear Studies, LANL* The Slaved Protein Glass Transition.

PM Lunch

Afternoon Session: High Energy Density Dynamics

R. Falcone *UC Berkeley Session Chair*

J. Wark *University of Oxford* Time dependent diffraction and optic phonons

P. B. Corkum *National Research Council of Canada*

Sub laser cycle electron pulses for probing molecular dynamics

Break

M. E. Garcia *Institute for Theoretical Physics, Freie Universitaet Berlin*

Microscopic description of laser induced femtosecond structural changes in solids

R. W. Lee *LLNL*

Warm Dense Matter and Plasma Related Studies with Short Pulse X ray Light Sources

Workshop Closed