

Workshop Agenda
Center for Pulsed-Power-Driven
High-Energy-Density Plasma Studies
(Draft as of June 13, 2003)

Monday Morning, June 23, 2003

Breakfast at Hotel (or home)

Bus/van brings people from Best Western to Cornell (leaves 8:10 AM)

(Talk durations in parentheses (e.g., 30 min) include questions.)

Opening Session (8:30 AM, 310 Rhodes Hall)

Bruce Kusse, Welcome and administrative information for Workshop

Introduction to the Center and its facilities

Clif Pollack, Welcome (perhaps on behalf of the Engineering Dean)

David Hammer, Intro to HEDP research

Vice Provost Robert Richardson, Welcome on behalf of the University (9:45 AM)

Chris Keane, NNSA's interest in HEDP

Break (10:15)

Wire Arrays (10:30)

Z-pinch research at Sandia and the connection to the Center – Chris Deeney (30 min)

Imperial College experiments and theory – Sergey Lebedev and Simon Bland (60 min)

General Discussion (10 min)

Lunch (12:15 PM, Upson Hall Lounge)

High Pressure Studies (1:15 PM, 310 Rhodes Hall)

Static High Pressure Research – Russell Hemley (new NNSA Center)

Dynamic High Pressure Research at Sandia – Chris Deeney

Proposed High Pressure research on COBRA – Michael Thomson

Break (2:45 PM)

Theory relevant to dense z-pinches and wire arrays (3:00 PM)

Several topics - Malcolm Haines (Imperial College) (25 min)

Kinetic modeling of hot electron generation - Yakob Dimant (Boston Univ.) (20 min)

Phase change development – Edmund Yu (Sandia) (15 min)

Discussion (15 min)

COBRA redesigned to 1 MA – Steve Glidden (45 min)

Adjourn for bus/van back to the hotel (5:30 PM) and reception and dinner (6:30 PM, Bistro Q)

Bus/van back to hotel around 9 PM

Tuesday Morning, June 24

Bus/van leaves motel at 8:15 AM; session starts at 8:30 AM in room 310, Upson Hall)

X-ray spectroscopy for determining the properties of high energy density pinches (8:30 AM)

Ultra-high spectral resolution in x-ray measurements – Yitzchak Maron (WSI) (20 min)

X-ray spectroscopy on MAGPIE - Tania Shelkovenko (Cornell/Lebedev) (20 min)

X-ray spectroscopic instruments and planned exp'ts – Victor Kantsyrev (UNR) (20 min)

Discussion (15)

Break (9:45 AM)

Astrophysical Plasma simulations (10:00 AM)

Imperial College – Sergey Lebedev (20 min)

University of Rochester - Adam Frank (20 min)

Cornell theory work - Richard Lovelace (20 min)

Discussion (10 min)

X-pinch Experiments and Interdisciplinary Applications (11:10 AM)

X-rays in the 8-15 keV range for backlighting (Cornell) – Byungmoo Song (20 min)

X-pinch plasma properties from spectra – Alla Shlyaptseva (UNR) (20 min)

Applications to seed development studies – Alan Taylor (Cornell) (20 min)

Lunch (12:15 PM, Upson Lounge)

X-pinches (cont'd) (1:15 PM, 310 Rhodes Hall)

Experiments at Florida A&M University – Richard Appartaim (20 min)

Lebedev Institute (MHD) – Pikuz (20 min)

Discussion (15)

Single wire and linear array experiments (2:10 PM, 310 Rhodes Hall)

Cornell single wire (in vacuum) – Peter D. (20 min)

Lebedev Institute single wire (in condensed matter) – Pikuz (20 min)

Cornell linear array experiments (vacuum) - Min Hu (20 min)

Discussion (20 min)

Break (3:30 PM)

Discussion of experiments on COBRA (3:45 PM)

High Pressure Experiments

Wire arrays and X-pinches

Adjourn 5:00 PM

Wednesday morning June 25, 2003

Discussion as needed on the use of COBRA and other Center facilities

Location and start time to be determined by participants