

Christmas High Power Laser Science Community Meeting

14 – 16 December 2011

STFC – Rutherford Appleton Laboratory

Abingdon - The Guildhall and The Cosener's House

Wednesday 14 December: The Pickavance Lecture Theatre, Rutherford Appleton Laboratory

12:30 – 13:30 REGISTRATION AT THE RIDGWAY HOUSE

12:30	PACKED LUNCH
13:30	John Collier - Science & Technology Facilities Council <i>Welcome.</i>
13:45	Natalie James - Engineering and Physical Sciences Research Council <i>News from EPSRC.</i>
14:00	Tim Goldsack - AWE plc. <i>ORION: progress towards academic access experiments.</i>

Session 1 - Chair Peter Norreys

14:15	Gianluca Sarri - Queens University Belfast <i>Temporal and spatially resolved characterisation of megagauss self-generated magnetic fields during ultra-high intensity laser-solid interactions.</i>
14:27	Stefan Olsson Robbie - Imperial College London <i>Laser cluster interaction experiments and scalling to higher drive energies.</i>
14:39	Christopher Murphy - University of Oxford <i>Proto-galactic magnetic field generation in laser produced shock waves.</i>
14:51	Brennig Williams - Imperial College London <i>A new VFP-PIC hybrid code to model fast electron transport with hydrodynamic response.</i>
15:03	COFFEE/TEA – The Pickavacne Lecture Theatre/R22 Coffee Lounge

Session 2 - Chair Nathan Sircombe

15:30	David Carroll - University of Strathclyde <i>The effects of lattice order on electron transport in carbon allotropes.</i>
15:42	Rachel Dance - University of York <i>K-shell resonance line imaging during a petawatt interaction.</i>
15:54	Sergei Lebedev - Imperial College London <i>Application of Thomson scattering diagnostic to measurements of plasma parameters in HEDP supersonic plasma flows.</i>
16:06	Malcolm Haines - Imperial College London <i>Rayleigh-Taylor and electrothermal instabilities in ICF.</i>
16:36	Close
16:45	Travel to Cosener's House

The Cosener's House

18:30	Welcome Reception
19:00	DINNER

Thursday 15 December

The Cosener's House

09:00	Delegates Poster Session – Seminar Room 1
10:30	COFFEE/TEA – The Cosener's House Seminar Room 2

The Guildhall, Abbey Close, Abingdon

Session 4 - Chair Gianluca Sarri

11:00	Fabien Quéré - CEA, France <i>Measuring and exploiting spatio-temporal couplings of ultrashort laser beams.</i>
11:30	Ceri Brenner - University of Strathclyde <i>Enhancement of laser accelerated proton beams using the multiple pulse technique.</i>
11:42	Nicholas Dover - Imperial College London <i>Features of ion acceleration from ultra-thin foils in the radiation-pressure regime.</i>
11:54	Peta Foster - STFC Rutherford Appleton Laboratory <i>Laser-driven ion acceleration and the effect of laser contrast.</i>
12:06	Kaniz Fatema Kakolee - Queens University Belfast <i>Scaling of ion spectral peaks in RPA LS regime employing Vulcan Petawatt laser.</i>
12:18	Satyabrata Kar - Queens University Belfast <i>Radiation pressure acceleration in HB regime employing Vulcan Petawatt laser.</i>
12:30	GROUP PHOTOGRAPH – The Guildhall
12:42	LUNCH – The Cosener's House

Session 5 - Chair Satyabrata Kar

13:42	Christopher Brady - University of Warwick <i>Quantum electrodynamic absorption of ultra-high intensity lasers in relativistically underdense materials</i>
14:12	Raoul Trines - STFC Rutherford Appleton Laboratory <i>Channelling and filamentation in laser-driven nuclear fusion.</i>
14:24	Edward Higson - University of Oxford <i>The role of wave front deformation in laser beam filamentation.</i>
14:36	Brendan Dromey - Queens University Belfast <i>Relativistic high harmonic generation in transmission from ultra thin foils.</i>
14:48	Wolf Rittershofer - University of Oxford <i>Laser wakefield acceleration in tapering plasma channels.</i>
15:00	Michael Bloom - Imperial College London <i>Recent results from the Astra Gemini laser: laser wakefield accelerators towards table-top accelerators and bright synchrotron sources.</i>
15:12	Jimmy Holloway - University College London <i>Particle driven plasma wakefield acceleration.</i>
15:24	Silvia Cipiccia - University of Strathclyde <i>LWFA based bremsstrahlung source: a compact tuneable gamma-ray source.</i>
15:36	Charlotte Palmer - University of Hamburg/DESY, Germany <i>Exploring the physics of external electron-bunch injection into laser-driven plasma wakes at REGAE.</i>
15:48	COFFEE/TEA – The Cosener's House Seminar Room 2

The Cosener's House

16:00	Student Poster Competition – Seminar Room 1
18:30	Close
19:00	CHRISTMAS DINNER



Friday 16 December: The Guildhall, Abbey Close, Abingdon

Session 6 - Chair Brendan Dromey

09:00	Nicola Iji - Plymouth University <i>Impact of radiative damping on laser accelerated particles.</i>
09:12	John Kirk - Heidelberg, Germany <i>Drilling for pairs</i>
09:24	Yevgen Kravets - University of Strathclyde <i>Radiation from strongly radiating systems in the radiation reaction regime.</i>
9:36	Anton Ilderton - Umeå University, Sweden <i>QED processes in intense laser fields.</i>
09:48	Alistair Lawrence-Douglas - University of Warwick <i>Extended particle in cell models for laser plasmas.</i>
10:06	Christopher Ridgers - University of Oxford <i>Near-term experiments with QED laser-plasmas.</i>
10:18	Brian Reville - University of Oxford <i>Radiation from relativistic oscillators - connection to high harmonic generation?</i>
10:30	COFFEE/TEA – The Cosener’s House Seminar Room 2

Session 7 - Chair David Carroll

11:00	Ed Hill - Imperial College London <i>New analysis of a buried layer chlorinated plastic experiment.</i>
11:12	Shaun Taylor - Imperial College London <i>A computational study of 3D implosion asymmetry and mix in NIF targets.</i>
11:24	Arthur Turrell - Imperial College London <i>Degeneracy and temperature equilibration in high energy density plasmas.</i>
11:36	John Bissell - Imperial College London <i>Magnetized transport and instability in laser produced plasmas.</i>
11:48	Christopher Davie - Imperial College London <i>Perturbations on reflected hydrodynamic shocks relating to shock ignited ICF.</i>
12:00	Alex Robinson - STFC Rutherford Appleton Laboratory, <i>Complex guided fast electron transport for fast ignition ICF.</i>
12:12	LUNCH – The Cosener’s House

Session 8 - Chair Christopher Murphy

13:12	Robin Marjoribanks - University of Toronto <i>Citius, Altius, Fortius: Optics on Mount Olympus</i>
13:42	Markus Roth - Technische Universitaet Darmstadt, Germany <i>Warm Dense Matter driven by laser accelerated proton beams.</i>
13:54	Holgar Schmitz - Imperial College London <i>Investigation of transport and magnetic collimation of fast electrons in structured targets irradiated by ultraintense laser pulses.</i>
14:06	Thomas White - University of Oxford <i>Temperature relaxation in Warm Dense Matter: simulation and experiment.</i>
14:18	Lucy Wilson - University of York <i>Measuring the transmission of short pulse laser heated iron foils using an x-ray laser.</i>
14:30	Gabriele Mogni - University of Oxford <i>Ientropic compression of condensed matter: simulation and experiment.</i>
14:42	Mohammed Shahzad - University of York <i>The EUV and x-ray opacity of plasmas.</i>
14:54	COFFEE/TEA – The Cosener’s House Seminar Room 2

Session 9 - Chair David Neely

15:24	Lewis Liu - University of Oxford <i>Method for quasi-phase matching high harmonic generation.</i>
15:36	David Lloyd - University of Oxford <i>Spatial characteristics of quasi-phase-matched high harmonic generation.</i>
15:48	Peter Norreys - STFC Rutherford Appleton Laboratory & Imperial College London <i>Summary</i>
15:53	Close