

OxCHEDS Seminars Archive



(Updated 08 February 2024)

#	Speaker	Title	Date	Location
		2024		
60	Dr Adrian Crilly Imperial College London	Radiation modelling for HEDP and ICF experiments	05 February 2024 11:30	Simpkins Lee Lecture Theatre
59	Dr Chris Murphy University of York	Improving and imaging laser-based radiation sources	29 January 2024 11:30	Simpkins Lee Lecture Theatre
		2023		
58	Dr Charlotte Palmer Queen's University Belfast	Exploiting novel liquid sheet targets for the generation of high-flux radiation sources	20 November 2023 11:30	Simpkins Lee Lecture Theatre
57	Prof Rajeev Pattahil STFC	Plasma acceleration in EPC	13 November 2023 11:30	Simpkins Lee Lecture Theatre
56	Dr Art Pak LLNL	Target gain > 1 from inertial confinement fusion implosions at the National Ignition Facility	17 October 2023 15:00	Simpkins Lee Lecture Theatre
55	Prof Chrystèle Sanloup UPMC, Université Sorbonne	Planetary interiors: a wealth of pressure-induced phenomena	09 October 2023 11:30	Simpkins Lee Lecture Theatre
54	Dr Alexis Casner CEA-CESTA	Unravelling novel hydrodynamics instabilities in HED plasmas on NIF	30 January 2023 11:30	Online seminar
		2022		
53	Dr Tammy Ma LLNL	Accelerating the rate of discovery: Toward high- repetition laser-driven High Energy Density (HED) Science	14 November 2022 16:45	Online seminar
52	Robert Paddock University of Oxford	Foams for inertial confinement fusion: Modelling and experiments	10 October 2022 11:30	Simpkins Lee Lecture Theatre
51	Dr Tammy Ma LLNL	Accelerating the rate of discovery: toward high- repetition-rate laser-driven high energy density (HED) science	13 June 2022 11:30	Simpkins Lee Lecture Theatre
50	Prof Carolyn Kuranz University of Michigan	Creating astrophysical conditions in the laboratory	16 May 2022 11:30	Simpkins Lee Lecture Theatre
49	Prof Dustin Froula LLE	Measuring electron distribution functions with Thomson scattering	21 February 2022 11:30	Simpkins Lee Lecture Theatre
48	Prof Farhat Beg UC San Diego	Laser-acceleration of energetic protons and fast ignition inertial confinement fusion	31 January 2022 16:00	Online seminar
47	Dr Sam Azadi University of Oxford	Quasiparticle effective mass of the three- dimensional fermi liquid	17 January 2022 11:30	Simpkins Lee Lecture Theatre
		2021		
46	Dr Adrien Descamps SLAC	Direct measurements of bulk temperature using inelastic x-ray scattering at x-ray free electron lasers	6 December 2021 10:00	Audrey Wood Seminar Room

45	Dr Muhammad Kasim University of Oxford	Integrating machine learning and quantum chemistry with fully differentiable quantum chemistry	18 October 2021 11:30	Simpkins Lee Lecture Theatre
44	Dr Spencer Jolly ULB	Spatio-temporal characterization: reaching the limits of understanding ultrashort laser pulses	11 October 2021 11:30	Simpkins Lee Lecture Theatre
43	Dr Hui Chen LLNL	Advances in relativistic electron-positron pair production using high power lasers	7 June 2021 11:30	Online seminar
42	Dr Ramy Aboushelbaya University of Oxford	Orbital angular momentum in high-power laser interactions	31 May 2021 11:30	Online seminar
41	Dr Félicie Albert LLNL	Laser plasma accelerators: next-generation x-ray light sources	17 May 2021 16:00	Online seminar
40	Dr Luke Ceurvorst CELIA	Understanding and mitigating the ablative Rayleigh-Taylor instability in inertial confinement fusion	10 May 2021 11:30	Online seminar
39	Dr Jens Osterhoff DESY	Plasma accelerators for applications in health, photon science, and particle physics	1 March 2021 11:30	Online seminar
38	Dr Marija Vranic Instituto Superior Técnico	Radiation-dominated electron acceleration in plasma channels using extremely intense light	15 February 2021 11:30	Online seminar
37	Dr Jessica Shaw University of Rochester	New developments in laser wakefield acceleration at the laboratory for laser energetics	25 January 2021 11:30	Online seminar
		2020		
36	Dr Sebastien Le Pape LULI	High power lasers: from fusion energy to the death of stars	30 November 2020 11:30	Online seminar
35	Prof Petros Tzeferacos University of Rochester	Concerted simulations and laser-driven laboratory experiments to shed light on fundamental physical processes in plasma astrophysics	23 November 2020 11:30	Online seminar
34	Prof Michael Bonitz Kiel	Perspectives of quantum plasma and warm dense matter theory	26 October 2020 11:30	Online seminar
33	Dr James Sadler LANL	Improved transport coefficients for collisional magnetized plasma	19 October 2020 15:00	Online seminar
32	Dr Muhammad Kasim University of Oxford	Up to two billion times acceleration of scientific simulations with deep neural architecture search	8 June 2020 11:00	Online seminar
31	Dr Nitin Shukla Instituto Superior Técnico	Exploring magnetic field generation in unmagnetized plasmas under realistic laboratory conditions	11 May 2020 11:00	Online seminar
30	Dr Emma McBride SLAC	Towards the centre of the Earth and beyond: combining hard x-ray FELS with dynamic compression	11 February 2020 11:30	Simpkins Lee Lecture Theatre
29	Dr Sam Vinko University of Oxford	Mapping the electronic structure of warm dense nickel via resonant inelastic x-ray scattering	6 February 2020 11:30	Simpkins Lee Lecture Theatre
28	Dr Dominik Kraus TU Dresden	Warm dense matter: from giant planets and stars to nanoparticles	3 February 2020 11:30	Simpkins Lee Lecture Theatre
27	Dr Francisco Suzuki-Vidal Imperial College London	Astrophysical jets in the context of high energy density science	30 January 2020 11:30	Simpkins Lee Lecture Theatre
26	Dr Gemma J Anderson LLNL	Calibrated uncertainties in predictive models of inertial confinement fusion using large-scale learning	21 January 2020 11:00	Simpkins Lee Lecture Theatre

25	Prof Marta Fajardo Instituto Superior Técnico	Ultrafast imaging of warm dense plasmas: shedding light into rapidly changing opaque plasmas	6 November 2019 11:00	501 Denys Wilkinson Building
24	Prof Byuong Ick Cho Gwangju Institute of Science and Technology	Ultrafast processes in HED matter created by femtosecond lasers	5 September 2019 11:00	Audrey Wood Seminar Room
23	Dr Rob Rudd LLNL	High strain rate plasticity following phase transformations	12 July 2019 11:00	Audrey Wood Seminar Room
22	Dr Kirk A Flippo LANL	High energy density hydrodynamics and ICF experiments at Los Alamos National Laboratory	5 July 2019 11:00	Audrey Wood Seminar Room
21	Dr Peter Hatfield University of Oxford	Machine learning and algorithmic approaches for ICF and other HEDP experiments	11 February 2019 11:30	Audrey Wood Seminar Room
20	Prof John Allen University of Oxford	The Bennett pinch for non-relativistic electrons	4 February 2019 11:30	Audrey Wood Seminar Room
19	Dr Agapi Emmanouilidou UCL	Interactions of atoms and molecules with free electron lasers	28 January 2019 11:30	Audrey Wood Seminar Room
18	Dr Alexis Casner University of Bordeaux	Turbulent-like Rayleigh-Taylor instability experiments in high energy density plasmas	14 January 2019 11:30	Audrey Wood Seminar Room
		2018		
17	Prof Farhat Beg UCSD	Review of fast ignition: the Good, the Bad, and the Ugly	28 November 2018 16:00	Simpkins Lee Seminar Room
16	Prof Heidi Reinholz University of Rostock	Quantum statistical approach to transport and optical properties in warm dense matter	8 October 2018 11:30	Audrey Wood Seminar Room
15	Dr Laura Chen University of Oxford	Laboratory observation of stochastic particle diffusion in a turbulent plasma	29 January 2018 11:30	Audrey Wood Seminar Room
		2017		
14	Dr John Foster AWE	In-situ x-ray diffraction investigations of shock- and ramp-compressed copper and vanadium	30 October 2017 11:30	Audrey Wood Seminar Room
13	Dr Matt Hill AWE	Petawatt laser driven ion beams as a tool for equation of state studies	18 October 2017 11:30	Audrey Wood Seminar Room
12	Prof Patrick Audebert LULI	Current status of the LULI laser facilities and Cilex project	6 June 2017 10:30	Audrey Wood Seminar Room
11	Dr Hye-Sook Park LLNL	Frontiers in high energy density physics at the National Ignition Facility and other high power laser facilities	28 April 2017 14:00	Audrey Wood Seminar Room
10	Dr Joseph Aouad LULI	X-ray free electron lasers interaction with matter: collisional-radiative modelling	24 April 2017 14:00	Audrey Wood Seminar Room
		2016		
9	Dr Rob Rudd LLNL	Multiscale modelling of high-rate plasticity in bcc metals	15 July 2016 11:30	Audrey Wood Seminar Room
		2015		
8	Dr Markus Roth Technical University of Darmstadt	Intense ion and neutron beams from high contrast short pulse lasers	5 March 2015 14:00	Robert Hooke Room

7	Dr Pedro Velarde <i>and</i> Dr Alberto de la Varga <i>IFN</i> and <i>UPM</i>	Time-dependent non-equilibrium atomic and electronic response modelization in high intensity x-ray laser-matter interaction	24 February 2015 12:00	Audrey Wood Seminar Room	
		2014			
6	Dr Jon Eggert LLNL	Extreme-compression high-energy-density physics (EC HEDP) experiments	28 June 2014 15:00	Audrey Wood Seminar Room	
5	Dr Bruce Hammel LLNL	Simulating and diagnosing shell ρR perturbations and hot-spot mix in NIF capsule implosions	1 August 2014 11:30	Audrey Wood Seminar Room	
4	Prof Chris Pickard UCL	Ab initio random structure searching	19 May 2014 14:00	Audrey Wood Seminar Room	
	2013				
3	Dr John Foster AWE	Astrophysically-relevant hydrodynamics experiments using lasers	2 July 2013 14:00	Audrey Wood Seminar Room	
2	Prof Robin Marjoribanks University of Toronto		18 October 2013 14:00	501 Denys Wilkinson Building	
1	Prof Eduardo Bringa Universidad Nacional de Cuyo	Shock induced plasticity and phase transitions in bcc metals	9 October 2013 14:00	Audrey Wood Seminar Room	