

## Program - International Online Plasma Seminar (IOPS)

Presentations begin at 1:00 pm UTC on Thursdays

Date (mm/dd/yyyy)	Speaker (Affiliation)	Presentation
05/08/25	Archis Joglekar (Ergodic LLC, University of Michigan - Ann Arbor, University of Rochester)	Applying Differentiable Programming and Machine Learning to Solve Inverse Problems in Theoretical, Experimental, and Computational Plasma Physics
05/22/25	Stanislav Musikhin (Princeton Plasma Physics Laboratory)	Peculiarities of continuous synthesis of SWCNTs using a DC arc discharge with a molten metal anode
05/22/25	Yifan Gui (University of Michigan)	Control of Core-shell Nanoparticles Properties through Plasma Synthesis: a Computational Study
06/05/25	Daniel Main (Tech-X)	Fast kinetic modeling of the plasma evolution, etch rate and deposition profile in direct current magnetron sputtering
07/03/25	Xue Wang (Colorado School of Mines)	In Situ Surface and Gas Phase Diagnostics to Study the Etching of SiN <sub>x</sub> with HF Plasma
07/03/25	Willca Villafana (Princeton Plasma Physics Laboratory)	Establishing criteria for the transition from kinetic to fluid modeling in hollow cathode analysis
07/17/25	Valery Godyak	Measurement of discharge power, plasma parameters, and electromagnetic field in RF plasmas
07/31/25	Harish Radhakrishnan (Iowa State University)	Non-equilibrium plasma co-upcycling of waste plastics and CO <sub>2</sub> for carbon-negative oleochemicals

07/31/25	Evan Litch (University of Michigan)	Consequences of low bias frequencies in inductively coupled plasmas on ion angular distributions for high aspect ratio plasma etching
08/14/25	Pingshan Luan (TEL Technology Center, America)	Fluorocarbon Plasma and Sustainable Replacements for Industrial Etching of Dielectric Materials
08/14/25	Lan-Yue Luo (Department of Engineering Physics, Tsinghua University, Beijing)	The quenching effect of oxygen addition on an argon capacitively coupled plasma: experimental and computational study of the argon metastable atom kinetics
08/28/25	Jimena Gorfinkiel (School of Physical Sciences, The Open University)	A helping environment: neighbour-assisted electron capture
09/11/25	Michael Campanell (Lawrence Livermore National Laboratory, USA)	Two mechanisms limiting the emitted electron current from a cathode to an anode
09/11/25	Norleakvisoth Lim (University of California, Santa Barbara)	Plasmas Directly Excited in Liquid Hydrocarbons for H <sub>2</sub> and Unsaturated C <sub>2</sub> Hydrocarbon Production
09/25/25	Xingyi Shi (Applied Materials)	Three dimensional high-aspect-ratio silicon etching
09/25/25	Dmytro Sydorenko (University of Alberta)	Improved algorithm for a two-dimensional Darwin particle-in-cell code
10/09/25	Matthew Goeckner (The University of Texas at Dallas)	Accuracy of plasma simulations and methods to improve modeling of electron distribution functions
10/23/25	Alexandros Gerakis (Luxembourg Institute of Science and Technology)	Development of coherent methods to infer electron and ion plasma parameters
10/23/25	Chuanfei Dong (Boston	Integrating Kinetic Effects in Multi-Moment

University)

Fluid Modeling through Machine Learning