

# Nonlocal Collisionless Phenomena in Plasmas, PPPL

Time	August 2, 2005	August 3, 2005	August 4, 2005	
9:00 AM	Registration	Diagnostics/Experiments, Z. Sternovsky	S. A. Cohen <i>Experimental studies of double layers in helicon plasmas</i>	
9:30 AM	R. Goldston, I. Kaganovich <i>Welcome</i>		F.F. Chen <i>Anomalous transport in industrial RF plasmas</i>	
10:00 AM	V. Godyak <i>EEDF Modification in RF Plasmas</i>		A. Dunaevsky <i>Kinetic experimental studies of expanding plasmas</i>	
10:30 AM	<b>BREAK</b>		<b>BREAK</b>	
11:00 AM	N. J. Fisch <i>Kinetic effects and current drive in high temperature plasma</i>	F. Skiff <i>Diagnostics of collisionless process in plasmas</i>	PIC simulations, T. Hughes	
11:30 AM	T. S. Hahm <i>Theory, simulation and experimental test of turbulence spreading</i>	<i>Informal discussion on diagnostics</i> S. A. Cohen		
12:00 PM	G. Hammett <i>Nonlocal fluid closure approximations for collisionless dynamics, with nonlinear extensions</i>	Anomalous skin effect, R. P. Brinkmann	Basic effects in plasmas, A. Smirnov	
12:30 PM	<b>LUNCH</b>			<b>LUNCH</b>
1:00 PM	<b>LUNCH</b>			<b>LUNCH</b>
1:30 PM	R. Boswell <i>On a topic of sub-Bohm diffusion in a high beta helicon plasma.</i>	O. Polomarov <i>Anomalous skin effect in nonuniform plasmas.</i>	Laser plasmas, A. Sefkow	
2:00 PM	Y. Raites <i>Non-local effects of electron heat transport in Hall thrusters</i>	M. Turner <i>Collisionless heating in capacitive discharges</i>		
2:30 PM	M. Keidar <i>Electron transport in closed ExB drift devices</i>	Sheath modeling, P. Stoltz	DC discharges and arcs, N. Birdsall	
				I.V. Schweigert <i>Capacitively and inductively coupled HF discharges in one and two dimensional PIC-MCC simulations.</i>
			W. Lee <i>How to Reduce Noise in Particle Simulation</i>	
			I. Kolev <i>Comprehensive PIC-MC model for planar magnetron discharges</i>	
			R. Arslanbekov <i>Simulations of electron kinetics in gas discharges: the state of the art</i>	
			<b>BREAK</b>	
			<i>Informal discussion on simulations</i> S. Hudson	
			G. M. Milikh <i>Physics of high altitude lightning</i>	
			L. Tsengin <i>The electron energy diffusion coefficient in weakly collisional plasmas</i>	
			<b>LUNCH</b>	
			M. Shneider <i>Molecular ensembles in optical lattices</i>	
			A. Brantov <i>Dielectric permittivity and nonlocal electron transport in weakly collisional plasma</i>	
			I. Beilis <i>Kinetic of plasma particles and electron beam relaxation zone in the vacuum arc</i>	

3:00 PM		BREAK		BREAK		BREAK
3:30 PM		<i>Informal discussion on turbulence</i> F. Skiff		K. Bowers <i>Surface waves and Landau resonant heating in unmagnetized bounded plasmas</i>		A. Fridman <i>Kinetics of low temperature plasma: physics and applications</i>
4:00 PM	POSTER SESSION			<i>Informal discussion on sheath</i> M. Turner		C. E. Theodosiou <i>Electron impact scattering cross sections for plasma physics</i>
4:30 PM			PPPL TOUR		Conclusions	V. Demidov <i>Non-local effects in afterglow plasmas</i>
5:00 PM						F. Skiff, S. A. Cohen
5:30 PM						M. Turner, S. Hudson I. Kaganovich
7:00 PM			Dinner at Nassau Sushi			

1	N. Birdsall <i>Transition from a decaying capacitive discharge to a self-heated resistive discharge</i>
2	R. P. Brinkmann <i>Collisional and Non-Collisional Heating in Capacitively Coupled Plasmas: A Unified Picture</i>
3	T. Hughes <i>Monte-Carlo vs. bulk resistivity modeling of an RF Helium plasma</i>
4	A. Kudryavtsev, E. A. Bogdanov <i>Nonmonotonic behavior of excitation-rate spatial profiles in bounded plasmas due to effects of EDF nonlocality</i>
5	S. Robertson <i>A model for the density, temperature and plasma potential of low-density, hot-filament discharges</i>
6	A. Sefkow Using LSP code to optimize ion beam diagnostic and proton beam generations
7	A. Shvydky <i>Three-dimensional Monte-Carlo/Particle-in-Cell simulations of the discharge pulse in an AC-PDP cell</i>
8	Y. Sosov <i>Pn approximation of Boltzmann equation applied to the breakdown in Argon</i>
9	Z. Sternovsky <i>Collisional reduction of the ion flux to the wall in low-pressure gas discharges</i>
10	P. Stoltz <i>Simulations of particle dynamics in gas-filled diodes</i>
11	A. Smirnov Electron cross-filed transport in a miniaturized cylindrical Hall thruster
12	D. Sydorenko <i>Modification of Electron Velocity Distribution in Bounded Plasmas by Secondary Electron Emission</i>