

Monday, May 16

08:00 Registration

09:00 Welcome note

Session 1, Chair: **P. Shukla**

09:30 **G. Morfill**, Max-Planck-Institute for Extraterrestrial Physics, Germany 1
Complex Plasma as a New Interdisciplinary Research Field

10:15 **R. Merlino**, The University of Iowa, USA 2
Nonlinear Dust Acoustic Waves, Shocks, and Stationary Structures Observed in a DC Glow Discharge Dusty Plasma

10:40 Coffee break

Session 2, Chair: **D. Block**

11:00 **A. A. Mamun**, Jahangirnagar University, Bangladesh 3
Nonplanar Solitary and Shock Waves in Dusty Plasmas

11:25 **L. Couëdel**, Université de Provence, France 4
Mode coupling due to ion wakes in 2D complex plasma crystals

11:50 **O. Arp**, Christian-Albrechts-University Kiel, Germany 5
Nonlinear Phenomena and Self-Organization in Dusty Plasmas

12:15 **M.-C. Chang**, National Central University, Taiwan 6
Nonlinear Wave-particle Interaction and Particle Trapping in Large Amplitude Dust Acoustic Waves

12:35 Lunch

Session 3, Chair: **M. Hellberg**

14:00 **H. Kählert**, Christian-Albrechts Universität zu Kiel, Germany 7
Fluid modes of a spherically confined Yukawa plasma

14:20 **A. Piel**, Christian-Albrechts-University Kiel, Germany 8
Some Thoughts about Dust Density Waves

14:45 **R. Kompaneets**, The University of Sydney, Australia 9
Higher Landau modes and dust shielding in field-driven ion flows

15:10 Coffee break

Session 4, Chair: **S. Robertson**

15:40 **A. Lipaev**, Joint Institute for High Temperatures, Russia 10
Survey of Complex Plasma Research on the International Space Station using PK-3 Plus Microgravity Laboratory

16:05 **A. D. Usachev**, Joint Institute for High Temperatures, Russia 11
Structural and Dynamic Phenomena in the "Plasma Krystall - 4" Experiments under Microgravity Conditions

16:25 **B. Buttenschön**, Ernst-Moritz-Arndt-University Greifswald, Germany 12
3D Particle Dynamics in Dusty Plasmas Under Microgravity

16:45 Poster Session A

Tuesday, May 17

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	Session 5, Chair: S. Girshick	
09:00	L. Boufendi , Université d'Orléans, France <i>Dusty Plasmas in Applications</i>	13
09:45	A. Michau , Université Paris 13, France <i>Particle formation in a DC discharge</i>	14
10:10	S. Krasheninnikov , University of California San Diego, USA <i>Dust in Magnetic Fusion Devices: Recent Progress and Future Directions</i>	15
10:35	Coffee break	
	Session 6, Chair: S. Ratynskaya	
11:00	J. Berndt , Université d'Orléans, France <i>Growth and transport of nanoparticles in capacitively coupled discharges</i>	16
11:20	C. Arnas , Université de Provence, France <i>Comparison of nanoparticles produced in the MAST tokamak with those produced in laboratory plasmas</i>	17
11:40	Y. Hayashi , Kyoto Institute of Technology, Japan <i>Self-Bias Monitoring during Gas-Phase Synthesis of Single-Walled Carbon Nanotubes in RF Plasmas</i>	18
12:00	L. Matthews , Baylor University, USA <i>Agglomeration of Dust Particles in Plasma</i>	19
12:25	Lunch	
	Session 7, Chair: M. Mikikian	
14:00	E. Lazzaro , Istituto di Fisica del Plasma "P.Caldirola", Italy <i>Approaches to the Diagnostics of Dust in Plasmas</i>	20
14:25	J. Beckers , Eindhoven University of Technology, the Netherlands <i>Microparticles under hyper-gravity conditions probing the electric field strength in a collisional RF plasma sheath</i>	21
14:50	E. Thomas, Jr. , Auburn University, USA <i>New developments in Particle Image Velocimetry (PIV) for the study of complex plasmas</i>	22
15:10	Coffee break	
	Session 8, Chair: J. Allen	
15:40	J. D. Williams , Wittenberg University, USA <i>Application of tomographic particle image velocimetry to complex (dusty) plasmas</i>	23
16:00	A. Aschinger , Ruhr-Universität Bochum, Germany <i>Dynamic Light Scattering on Complex Plasmas</i>	24
16:20	A. Melzer , University Greifswald, Germany <i>Optical Emission of Dusty RF Discharges: Experiment and Simulation</i>	25
16:40	Poster Session B	

Wednesday, May 18

08:00 Registration

Session 9, Chair: **Lin I**

09:00 **H. Loewen**, Heinrich-Heine-University Düsseldorf, Germany 26
Nonequilibrium phase transitions in colloids and dusty plasma

09:45 **P. Schall**, University of Amsterdam, The Netherlands 27
Rheology of colloidal suspensions

10:10 **T. Voigtmann**, Institute of Materials Physics in Space, Germany 28
Nonlinear flow phenomena in dense liquids

10:35 Coffee break

Session 10, Chair: **I. Hutchinson**

11:00 **M. Sperl**, Institute of Materials Physics in Space, Germany 29
Glass transition in colloids and granular matter: connection to complex plasmas

11:25 **M. Drewsen**, University of Aarhus, Denmark 30
Investigations of plasma modes of ion Coulomb crystals by means of cavity quantum electrodynamics

11:50 **M. Schwabe**, Max-Planck-Institute for Extraterrestrial Physics, Germany 31
Exploring the limits of cooperative phenomena using complex plasma

12:15 **S. A. Khrapak**, Max-Planck-Institut für extraterrestrische Physik, Germany 32
Approximate methods to locate phase boundaries in complex plasmas and related systems

12:35 Lunch

13:30 Excursion

Thursday, May 19

08:00	Registration	
	Session 11, Chair: M. Horanyi	
09:00	A. Mendis , University of California San Diego, USA <i>Dusty Plasmas in Space</i>	33
09:45	I. Mann , Belgian Institute for Space Aeronomy, Belgium <i>Dust in the interplanetary medium: local interactions</i>	34
10:10	Z. Sternovsky , University of Colorado Boulder, USA <i>Frontiers in in-situ cosmic dust detection and analysis</i>	35
10:35	Coffee break	
	Session 12, Chair: S. Popel	
11:00	O. Havnes , University of Tromsø, Norway <i>In-flight calibration of mesospheric rocket plasma probes by use of dust probe measurements</i>	36
11:20	V. J. Sterken , TU Braunschweig, Germany <i>The flow of interstellar dust through the solar system: the role of dust charging</i>	37
11:40	K. Avinash , University of Delhi, India <i>Plasma heat pump</i>	38
12:05	X. Wang , University of Colorado Boulder, USA <i>Dust Charging and Transport on Surfaces</i>	39
12:25	Lunch	
	Session 13, Chair: N. Cramer	
14:00	K. Rypdal , University of Tromsø, Norway <i>Exploring the analogy between freezing of a 2D Yukawa liquid and 2D decaying turbulence in fluids</i>	40
14:25	T. Ott , Christian-Albrechts-University Kiel, Germany <i>Self-diffusion in strongly coupled plasmas</i>	41
14:50	R. Ganesh , Institute for Plasma Research, India <i>Shear Flows in Two Dimensional Strongly Coupled Yukawa Liquids : A Large Scale Molecular Dynamics Study</i>	42
15:15	Coffee break	
	Session 14, Chair: S. Vladimirov	
15:40	P. Hartmann , Research Institute for Solid State Physics and Optics, Hungary <i>Static and dynamic viscosity of a single layer dusty plasma</i>	43
16:00	A. V. Zobnin , Joint Institute for High Temperatures, Russia <i>Simulations of the DC-discharge plasma with dusty structure</i>	44
16:20	I. Kourakis , Queen's University Belfast, UK <i>Dusty plasma waves in a superthermal environment: review of recent progress</i>	45
16:45	Poster Session C	
19:00	Conference dinner	

Friday, May 20

Session 15, Chair: **T. Hyde**

- 09:00 **P. K. Shukla**, Ruhr-Universitat Bochum, Germany 46
Experiments and Theory of Complex (Dusty) Plasmas
- 09:45 **P. Brandt**, Max-Planck-Institute for Extraterrestrial Physics, Germany 47
Tunable Potentials in Complex Plasmas
- 10:10 **H. Totsuji**, Okayama University, Japan 48
Structures and Dynamics of Fine Particle (Dusty) Plasmas with Cylindrical Symmetry: Theory and Simulations
- 10:35 Coffee break

Session 16, Chair: **A. Khrapak**

- 11:00 **V. Land**, Baylor University, USA 49
Numerical Simulations of dusty plasma
- 11:25 **W. Miloch**, University of Tromsø, Norway 50
Charging and potential in finite clusters of dust grains
- 11:50 **G. I. Sukhinin**, Institute of Thermophysics, Russia 51
Polarization of a Trapped Ion Cloud around a Dust Particle in an External Electric Field
- 12:10 **U. Konopka**, Max-Planck-Institute for extraterrestrial physics, Germany 52
Isotropy of the Particle-Pair-Interaction in Complex Plasmas under the Influence of a Magnetic Field
- 12:30 ICPDP6 Summary