

May 22, Monday

9.15 Opening Session

9.45 *Sitenko Memorial Lecture* by Paul VANDENPLAS

Plenary Session 1

10. 15 Hans WILHELMSSON Fusion and Cosmos

11.00 Coffee Break

Topical Review Session A1

11.30 Michael KRAEMER Anomalous helicon wave absorption and parametric excitation of electrostatic fluctuations in a helicon-produced plasma

12.00 Victor DECYK UPIC: A framework for massively parallel PIC codes

Topical Review Session B1

11.30 Predhiman K. KAW Intermittency like phenomena in plasma turbulence

12.00 Guido VAN OOST Experimental and theoretical investigations of the role of microturbulence and electric fields in the establishment of improved confinement in tokamak plasmas through inter-machine comparisons

12.30 Lunch Break

Oral Session A1

14.00 A004 Dirk CALLEBAUT Non-linear Fourier stability analysis

14.20 A005 Nikolay EROKHIN The charges acceleration due to parametric Interaction with the ensemble of electrostatic waves of finite amplitude

14.40 A006 Robert DEWAR Zonal flow generation by modulational instability

15.00 Coffee Break

- 15.30 A007 George MORALES Alfvénic phenomena triggered by resonant absorption in a magnetized plasma
- 15.50 A008 Anna FRANK Structure and dynamics of current sheets in 3D magnetic fields with the X line and manifestations of two-fluid plasma properties
- 16.10 A009 Volodymyr MYKHAILENKO Kinetic theory of the stability of the inhomogeneous plasmas with shear flows

Oral Session B1

- 14.00 B001 Roman SCHRITTWIESER Measurements of fluctuations with probes in the edge region of various toroidal plasmas
- 14.20 B002 Ivan DURAN Hall sensors – diagnostic approach to magnetometry in present fusion devices and ITER
- 14.40 B004 Stephane HEURAUX Reflectometry capabilities for the density fluctuation measurements in magnetized plasmas illustrated by Tore Supra measurements

15.00 Coffee Break

- 15.30 B006 Alexander IVANOV New effects in physics of modern mirrors
- 15.50 B007 Kenjii TANAKA Experimental study of anomalous particle transport and microturbulence in LHD

Oral Session C1

- 14.00 C001 Igor ANISIMOV Inhomogeneous plasma profile deformation due to the modulated electron beam
- 14.20 C004 Jorge PEREZ-PERAZA Different types of plasma turbulence in the process of solar particle acceleration: new models and observations
- 14.40 C005 Maria-Virginia ALVES Geomagnetic response and interplanetary aspects of the Sun-Earth connection events on April 1999 and February 2000
- 15.00 Coffee Break

- 15.30 C006 Ben McMILLAN Parallel electron and perpendicular ion energisation via lower hybrid waves
- 15.50 C007 Iver CAIRNS Electron acceleration due to lower hybrid waves in magnetic reconnection regions

16.10 C008 Raoul TRINES Wave collapse of drift mode turbulence into zonal flow cavitons

Oral Session D1

14.00 D001 Vyacheslav KARAS' Interaction of microwave radiation undergoing stochastic phase jumps with plasmas or gases
14.20 D003 Vyacheslav TSIOLKO Component content of active particles in plasma-chemical reactor based on a volume barrier discharge
14.40 D004 Joao de SOUZA Experimental study of the particle dynamics in a Plasma Hall Thruster through optical spectroscopy

15.00 Coffee Break

15.30 D005 Stephane PELLERIN Experimental study of a MIG-MAG welding arc
15.50 D006 Leopoldo SOTO X-ray emission from an ultra miniature pinch focus discharge operating at 0.1 Joule: Nanofocus

14.00 – 18.00 Poster Session I

(15.00 Coffee Break)

A014 V. SHTYK Cumulant expansions for solutions of the quantum BBGKY hierarchy
A023 P. KURBATOV Jumps in current, shock waves, and hysteresis phenomena in low- pressure gas D.C. discharge plasma
A031 M MEHDIPOOR Propagation of large amplitude ion acoustic waves in a plasma consisting of two temperature electrons and electron beam
A034 M. TARASOV The observation of Landau damping and diocotron echoes in a pure electron plasma
A035 D. SYTNYKOV The phenomena of electron charge ejection on the drift chamber wall during the hot electron beam transportation
A040 A. ESFANDYARI Electrostatic mode envelope excitations in warm pair ion plasmas with a small fraction of stationary positive ions – application in e-p-i and doped fullerene plasmas
A041 V. TARANOV Symmetry extensions in kinetic and hydrodynamic plasma models

- A043 N. AZARENKO Effect of negative-ion flux on ion distribution around a spherical probe in electronegative plasmas
- A044 V. TSIOLKO Inverse electron distribution function in glow discharge with hollow cathode in the mixture of N₂ and SF₆
- A045 E. SHUSTIN Dynamics of beam plasma instability in a bounded volume: computational experiment
- A046 R. SUGAYA Relativistic electron beam acceleration by Compton scattering of extraordinary waves
- A050 E. SHUSTIN Acceleration of ions in beam plasma discharge at a low magnetic field. Coordination of energy distributions of electrons and ions
- A111 Y. CHEKH Formation of electron vortices in ion beam plasma in crossed ExB fields
- A112 V. PAVLENKO The scattering and transformation of electromagnetic waves by density fluctuations in turbulent magnetized plasma
- A113 V. PAVLENKO Turbulent diffusion in magnetized parametrically unstable plasma
- A114 T. KANEKO Flow shear effects on drift-wave instability in multi-ion plasmas
- A117 B. SHOKRI Some macroscopic properties of plasma state through thermodynamical approach
- A118 B. SHOKRI Size influence on cohesion energy of nano-materials
- A119 V. LASHKIN Stable two-dimensional soliton and vortex structures at the upper-hybrid resonance
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- B016 M.P. BORA Limit cycle oscillations and sawtooth disruptions
- B019 A. NICOLAI Modelling of plasma rotation under the influence of the dynamic ergodic divertor in the tokamak TEXTOR
- B020 V. MARCHENKO Circulating-ion-driven fishbone instability in plasmas with the weak-shear core
- B021 V. LUTSENKO Confinement of fast ions in the presence of the radial electric field in Wendelstein-line stellarators
- B022 Y.V. YAKOVENKO Poloidal trapping of high-frequency Alfvén eigenmodes in stellarators
- B023 E. GUSAKOV Investigation of small scale tokamak plasma turbulence by correlative UHR backscattering diagnostics
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- C013 E. BELASHOVA Evolution of solitary waves in complex media with variable dispersion

- C016 L. MIROSHNICHENKO High-energy phenomena, plasma properties and particle acceleration in the Sun's atmosphere: observations and theoretical implications
- C018 S. MOSKALIUK Two-fluid plasma description and CMB polarization
- C021 N. GRISHANOV Proton cyclotron instability in two-dimensional magnetospheric plasmas with anisotropic temperature
- C026 V. BELASHOV Evolution and stability of the 3D FMS wave beams in a magnetized plasma
- C152 Y.G. RAPOPORT Stable and unstable response of the ionospheric F region to the spatial packet of atmospheric gravity waves (AGW) of the lithospheric origin
- C153 Y.G. RAPOPORT Response of the unstable equatorial F region of the ionosphere to the atmospheric gravity waves excited by the sources of seismic origin
- D013 S. AMIRI Formation of fcc AlN layer on aluminum surface by DC plasma assisted nitriding
- D014 M. MORADSHAHI Improvement of corrosion resistance of plasma nitrided stainless steel
- D016 V. TSIOLKO Efficiency of water disinfection by UV radiation of plasma of the discharge with hollow cathode
- D018 A. ARSEININ Self-consistent simulation and analysis of the electron heating processes in a neutral loop discharge
- D020 V. ZHOVTYANSKY Electric arc plasma: study and application in Ukraine
- D022 A. ESSIPTCHOUK Plasma wind tunnel: Diagnostics of subsonic plasma jet
- D023 I. SPASSOVSKA Plasma wind tunnel: Temperature jump effect of testing material samples
- D026 J.-L. FERREIRA Permanent magnet Hall thruster performance for near Earth space missions
- D027 G. PETRACONI Study of carbon reactivity in oxygen plasma using mass-spectrometry
- D029 H.-S. MACIEL Studies of Ar/N₂ plasma for growing amorphous and crystalline AlN thin-film in a hollow-cathode magnetron sputtering system
- D030 A. RISACHER Active stabilization of low-current arc discharges in atmospheric-pressure air

- D033 P. PORYTSKYI Thermodynamic properties and transport coefficients in metal seeded arc plasmas
- D034 V. MARENKOV Charge composition of soot grains in the plasma of burning hydrocarbon fuels
- D036 E. ILCHENKO Influence of non-unified electric field to combustion of liquid hydrocarbon fuels
- D037 A. MOZELEV A. Compact x-ray sources for plasma diagnostic methods
- D111 A. ABDIKIAN Investigation of fully relativistic effects growth rate for free-electron laser in completely filled waveguide
- D112 A. ABDIKIAN Relativistic effects in a waveguide completely filled by energetic electron beam for free-electron laser
- D113 A. SIDOROV Multicharged ion formation in plasma of electron cyclotron resonance discharge
- D114 I. LITOVKO Extraction and acceleration of high-current ion beams of multiply charged ions
- D115 I. LITOVKO Model of discharge in crossed ExH fields with closed electron drift under low pressure
- E013 I. DENYSENKO Ion drag on dust grains in electronegative plasmas
- E014 A. SAMARIAN Critical exponents for structural phase transitions in a complex plasma
- E017 O. KRAVCHENKO Dynamics of dust clouds in plasmas
- E020 G. MURTAZA A novel aspect of dust in plasma
- E022 A. FLORKO Electrical and optical oscillations in the front of premixed flame of zirconium
- E023 M. GHORBANALILU Calculation of the dielectric tensor elements of microwave produced plasma in the presence of a strong magnetic field
- E029 M.P. BORA Radiation instability in an optically thin, expanding dusty plasma
- E030 Y.-H. HUANG Persistence of structural order in 2D dusty Coulomb liquids
- E031 A. IVANOV The effect of a longitudinal magnetic field on the plasma; dust structures in strata of glow discharge
- E032 K. OSTRIKOV The electron energy distribution in a dusty plasma
- E033 Y. SEROZHKIN Opportunity of exploration of a motion dusty component with help of laser heterodyne receiver of scattered radiation
- E034 V. KARASEV Dusty structures in strata of glow discharge in magnetic field

E038 V. MARENKOV Conceptual aspects of the electrophysical heterogeneous plasma system properties theory

19.00 Welcome reception (“Dykan’ka” Restaurant)

May 23, Tuesday

Plenary Session 2

8.30 Minh Quang TRAN The challenges of ITER and its role in a roadmap towards fusion energy

9.15 Susan Kathryn AVERY A review on climate and weather in the Sun Earth system

10.00 Coffee Break

Topical Review Session B2

10.30 Vladimir TERESHIN Application of powerful quasi-steady-state plasma accelerators for simulation of ITER transient heat loads to the divertor surfaces

11.00 Jia-Qi DONG MHD flow layer formation at boundaries of magnetic islands in toroidal plasmas

11.30 Peter BEYER Relaxation oscillations and transport barrier dynamics in tokamak edge plasmas

12.00 Piero MARTIN A new paradigm for RFP magnetic self-organization: results and challenges

Topical Review Session C1

10.30 Alexander SCHEKOCHIHIN Magnetised plasma turbulence from stars to clusters of galaxies

11.00 James F. DRAKE A Fermi model for the production of energetic electrons during magnetic reconnection

11.30 Mark KOEPKE Sheared-flow-driven plasma fluctuations in space and laboratory

12.00 Richard DENDY Space plasmas and fusion plasmas as complex systems

12.30 Lunch Break

Oral Session B2

14.00 B008 Akihide FUJISAWA Experimental observations of zonal flows and turbulence in a toroidal plasma

14.20 B009 Jean-Francois ARTAUD Integrated modelling of burning plasmas in ITER
14.40 B010 Guido CIRAULO Control of chaotic transport and applications to plasma confinement

15.00 Coffee Break

15.30 B011 LI DING Influence of magnetic field and shear flow on the Rayleigh-Taylor instability ν
15.50 B012 Tomohiro MORISAKI Formation of internal diffusion barrier in LID configuration on LHD

Oral Session C2

14.00 C009 Rowena BALL Coupled edge-core dynamics
14.20 C010 Mihaly HORANYI Dusty plasmas and Saturn's rings
14.40 C011 Chanchal UBEROI A model for quantification of space weather phenomena

15.00 Coffee Break

15.30 C012 Valentina ZHARKOVA Particle acceleration and energy spectra in a 3D reconnecting current sheet
15.50 C002 Udayashankar PANIVENI Fractal structures of solar supergranular cells
16.10 C003 Oleg CHEREMNYKH Ballooning modes stability of the inner magnetosphere of the Earth with resistive ionospheres

Oral Session D2

14.00 D007 CHEN QIANG A high density of carboxyl group PAA film polymerized in plasma
14.20 D009 Subroto MUKHERJEE Surface engineering with plasma nitriding and plasma immersion ion implantation
14.40 D010 Anatoly VIKHAREV Nonequilibrium plasma produced by millimeter wave beams in CVD diamond technology

15.00 Coffee Break

15.30 D011 Igor GIRKA Influence of striction nonlinearity and parametric ion cyclotron turbulence on the structure of Alfvén resonance in a helical confining magnetic field

15.50 D012 Nikolay GORBUNOV Development of a plasma photoelectric converter of the focused optical radiation

Oral Session E2

14.00 E007 HONG-YU CHU Plasma bubbles in dusty plasma liquids

14.20 E008 Robert BINGHAM Quantum plasmas

14.40 E009 Dmitry SAMSONOV Shock waves in a complex (dusty) plasma

15.00 Coffee Break

15.30 E010 Rikizo HATAKEYAMA New aspects on plasma wave and instability phenomena — flow shear, polarization reversal, and pair ions

15.50 E012 Vladimir PAVLENKO Nonlinear dynamics of flute modes and self-organization phenomena in turbulent magnetized plasma

14.00 – 18.00 Poster Session II

(15.00 Coffee Break)

A120 Y AKIMOV Excitation of surface waves with different azimuth structure by tubular electron beams

A121 V. OLEFIR Symmetric surface waves in cylindrical waveguide structures with radially non-uniform plasma filling

A122 V. OLEFIR Symmetric surface wave at coaxial structure with azimuth external magnetic field filled by non-uniform magnetized dissipative plasma

A123 Y AKIMOV Parametric excitation of counter-propagating surface waves by a normal electric field

A124 Y AKIMOV Two surface wave decay of Langmuir waves

A126 M. ZAMBRA X-ray spectroscopy, preliminary experimental results in low-energy plasma focus devices

A131 M. CERCEK Potential formation in a plasma with two positive ion species

A132 T. GYERGYEK Multiple floating potentials of an electron emitting electrode

A133 I. MOROZOV Free and bound electrons in molecular dynamics simulations of nonideal plasmas

- A134 P. SHUKLA Parametric instabilities of coupled Langmuir, ion and dust oscillations in a cold quantum plasma
- A135 Y. YELISEYEV Non-local theory of spectra of “modified” ion cyclotron waves in plasma with large ion orbits in crossed fields
- A136 S. PELLERIN Linear and non-linear laser spectroscopy in studies of low-temperature and high-density plasmas
- A150 G. NORMAN Smooth cut-off of high level terms of atomic partition function in nonideal plasmas
- A151 S. KAJITA Investigation and application of the line intensity ratio method for the measurement of electron density and temperature
- A154 N. CRAMER Nonlinear electromagnetic waves in electron-positron plasmas
- A155 K. TAKAHASHI Effects of ion flow energy on self-consistent double-layer formation due to ECR in a converging magnetic field
- A156 T. RYABUKHA Regularization method for solution of BBGKY hierarchy
- A157 A. STUPKA Influence of correlations of the electric field on plasma waves
- A158 A. STUPKA Connected oscillations of plasma temperature and correlations of electromagnetic field
- A159 A. SOKOLOVSKY Equations for correlations of the electromagnetic field in hydrodynamic plasma
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- B111 S. GOUDARZI Experimental study of the variation of neutron emission anisotropy in a Filippov-type plasma focus facility
- B112 T. IDEHARA Development of THz gyrotrons for plasma diagnostics
- B113 S. LEBEDEV Neutral Beam Heating In The TUMAN-3M Tokamak
- B114 V. DYACHENKO Investigation of ICR heating efficiency in the spherical tokamak Globus-M
- B115 K. SATO Development of a size-controllable pellet injector for ablation studies
- B116 V. ASTRELIN Phenomenon of anomalous fast heating of ions during relaxation of electron beam in plasma of multimirror trap GOL-3
- B118 I. OGAWA Scattering measurement using a submillimeter wave gyrotron as a radiation source
- B119 I. OGAWA Development of a quasi-optical transmission system for gyrotron application as a radiation source
- B120 V. BUDAEV Intermittency and multifractal statistics of edge plasma turbulence in fusion devices

- B121 I. BOLSHAKOVA Present-day experience in the use of galvanomagnetic radiation hard transducers in fusion devices
- B122 I. HOLOD MHD modes in a global gyrokinetic particle simulations
- B123 P. DEVYNCK Extraction of coherent events out of turbulent signals
- B125 A. KOMORI Edge plasma control by ergodic layers on Large Helical Device
- B126 D. BONIFIGLIO Impact of a uniform plasma resistivity in MHD modelling of helical solutions for the reversed field pinch dynamo
- C112 L. STENFLO Parametric couplings between kinetic Alfvén and dispersive ion-acoustic waves in the solar corona
- C113 E. KHERANI Ionospheric plasma response during Tsunami: linear analysis and nonlinear simulation
- C114 M. KHOTYAINTSEV Comparative analysis of density fluctuations in the solar wind and the Earth's foreshock with application to scattering of radio waves
- C115 S. SOBHANIAN Gas-dynamical description of the propagation of a cloud of hot electrons through a plasma with decreasing density
- C117 A. SADOVSKI The revised GRV model of accretion disc corona
- C118 A. BELOV Laboratory modeling and artificial stimulation of the magnetospheric maser effects
- C120 G. DALAKISHVILI Influence of centrifugal and radiation reaction forces on dynamics of relativistic charged particles moving in the magnetospheres of the rotating astrophysical objects
- C121 I. FERREIRA Galactic Emission Mapping with a 5 GHz polarimeter
- C122 O. ZHELEZNYAK Dynamic effects of radiation interaction in the self-gravitating systems
- C124 O. ZHELEZNYAK Influence of dust particles on attenuation of magnetic field and dynamics of the space plasma
- C125 K. MUSATENKO Dynamics of the beam driven Langmuir wave packet in a plasma with random inhomogeneities
- C126 Y. KLYMENKO Dust Charge Distribution in Near-Earth Plasma: Analytical Solution of Discrete Population Balance Equations
- C127 Y. KHOTYAINTSEV Electric Structure of a Reconnection Separatrix Region
- C128 M. SHERLOCK The Role of Electron Transport in Generating Ion Shocks in Dense Targets Irradiated by Intense, Short Laser Pulses
- C131 M. FURUKAWA Singular behavior of axisymmetric magneto-rotational instability near the central object of an accretion disk

- C132 T. RAMAZANOV Thermodynamic and transport properties of a dense semiclassical plasma
- C133 T. RAMAZANOV Electron-atom collision cross sections in partially ionized dense plasma
- D116 V. BORISKO Metal-hydride activation of hydrogen as a tool of ion energy controlling in plasma sources
- D117 Y. SISOEV Excitation Probability of Vacuum Arc by Pulse Plasma Injector
- D118 Y. KLOCHKO Precision prepare of gas compositions for technological plasma devices
- D119 Y. SHMAL'KO Particular features of metal hydride gas supply systems for leak-in of hydrogen isotopes in plasma devices
- D120 M. CHICHINA A study of ZnO and ZnO:Al thin films deposited by RF plasma jet at atmospheric pressure
- D121 A. GURYN Numerical model of rf inductive discharge in magnetic field
- D122 N. BOLOUKI Effect of Cathode Material in Obstructed Discharge Regime
- D123 V. SLOBODYAN Distributions of plasma parameters, electron energy characteristics and LF wave activity in a magnetized ICP
- D124 M. HATAMI Effect of an oblique magnetic field on a plasma sheath consisting two-species positive ions
- D125 K. SHAMRAI Driving mechanisms of ion-acoustic activity in an $m = 0$ helicon plasma
- D126 V. VIRKO Continuous and discrete spectra of LF and HF waves in a helicon plasma
- D127 Y. VIRKO Compact helicon plasma source with permanent magnets in various configurations
- D130 I. POTAPENKO Electron heating and acceleration while magnetosphere substorm due to varying phase velocity
- D131 T. RADJABOV Technology of ion-plasma deposition of decorative coatings on ceramic materials
- D133 A. BIZYUKOV Anomalous electron transport in the low pressure DC discharge in crossed fields
- D134 I. DENYSENKO Plasma nanoscience: introducing the International Research Network for Deterministic Plasma-aided Nanofabrication
- D135 E. ROMASCHENKO The dynamics of the state of drop phase in arc discharge plasma

- D136 A. RASTKAR Effect of plasma nitriding on the surface of gamma based titanium aluminides
- D137 A. BOGOMAZ The electrode erosion in a high current pulsed arc
- D139 A. KASHABA New deposition technique for nanocomposite thin film growth at ambient temperatures
- D140 K. SEREDA High-current magnetron sputtering system with arc blowout
- D141 A. VEKLICH Plasma of free burning electric arc between composition electrodes in air
- D142 M. ZUIN Suppression of kink instability in magneto-plasma-dynamic thrusters
- D143 I. PRYSIAZHNEVYCH Optical diagnostic of low-pressure plasma-liquid system with secondary discharge supplied by plasma flow
- D144 V. YUKHYMENKO Plasma combustion of ethanol/air mixture in the transverse arc
- D145 I. VEREMII Optical properties of plasma-liquid system with discharge in the gas canal with liquid wall and secondary discharge
- D146 V. NAUMOV Transverse arc as the source of non-equilibrium plasma of atmospheric pressure
- D149 T. TOMASI The role of plasma spray techniques on the development of solid oxide fuel cells
- D150 M. KIYANCHUK Evolution of the modulated electron beam in supercritical plasma: simulation of initial-boundary problem
- D151 M. MURAKAMI Finite Mass Effect on Ion Acceleration in Plasma Expansion into Vacuum
- D152 L. ZAVADA Influence of a high-voltage power pulse duration on the ozone synthesis efficiency in the system of needle-to-plane electrodes
- D153 S. PELLERIN Experimental analysis of a double spark ignition system
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- E035 I. KOURAKIS Nonlinear dust charge fluctuations in dusty (complex) plasma: a Van der Pol-Mathieu model equation
- E036 I. KOURAKIS Charge polarization (dressed electrostatic interaction) effects in dusty (complex) crystals
- E110 L. STENFLO New dust modes in quantum dusty plasmas
- E111 T. ANTONOVA Spectroscopic investigation of the 3D plasma clusters' environment
- E114 O. GERASYMOV Conductivity, scattering and transport in granular materials

- E115 T. BYSTRENKO Computer simulations of the grain charge fluctuations in dusty plasmas
- E116 N. TAMARINA Experimental research of relaxation processes in the complex plasma
- E117 T. OGAWA Structure and Melting of Spherical Coulomb and Yukawa Clusters: Simulation and Theory
- E118 I. SHAKHOVA Experimental investigations of dusty plasma structures formed by rod-like particles

May 24, Wednesday

Plenary Session 3

8.30 Reiner STENZEL Nonlinear whistler phenomena in plasmas
9.15 Jan WEILAND Progress in the theory of anomalous transport in tokamaks, drift waves and nonlinear structures

10.00 Coffee Break

Topical Review Session B3

10.30 Hyeon PARK 2-D Images of Heat Transfer during Driven Reconnection Processes in Magnetically Confined Plasmas
11.00 Yusuke KIKUCHI Experimental and theoretical analysis of the excitation of error field modes by the dynamic ergodic divertor on the TEXTOR tokamak
11.30 Richard BUTTERY High plasma current and high triangularity operations in JET with the new MKII_{HD} divertor
12.00 Sergei KASILOV Evaluation of transport coefficients in stellarators using field line integration techniques *xiv*

Topical Review Session D1

10.30 Christopher HOLLAND Experimental Studies of Drift Wave - Zonal Flow Turbulence
11.00 Francis CHEN Extended helicon source with permanent magnets
11.30 Christine CHARLES Laboratory plasmas applied to the hydrogen economy (fuel cells)
12.00 Masaaki INUTAKE Supersonic Flow Generation for Basic MHD Studies and Space Applications

12.30 Lunch Break

Oral Session A2

14.00 A011 Shuichi. TAKAMURA Statistical approach to bursty plasma fluctuations in toroidal and linear plasma devices

14.20 A012 Ritoku HORIUCHI Collisionless driven reconnection in an open system

15.00 Coffee Break

15.30 A002 Hassan SHAH Generation of vortex rings by nonstationary laser wake field

15.50 A003 Leanid SIMONCHIK Parametric Decay Instability Control in Inhomogeneous Plasma by the Pump Frequency Modulation

Oral Session E2

14.00 E001 Gennady FRAIMAN Collision effects in ultra high illuminated plasmas

14.20 E002 Grygory DRAGAN Applying equilibrium theory to smoky plasmas

14.40 E003 Pieter SCHRAM Kinetic theory of friction and diffusion in dusty plasmas

15.00 Coffee Break

15.30 E004 Lev D'YACHKOV Charging of a small dust grain in collisional plasmas

15.50 E005 Victoria YAROSHENKO Role of the ion wake effect on stability of plasma crystals

16.10 E006 Oleksiy BYSTRENKO Structure of strongly coupled plasmas in quasi-two-dimensional confinement. A Monte Carlo study

14.00 – 18.00 Poster Session III

(15.00 Coffee Break)

A160 H. GHOMI Detailed simulation of the sheath evolution related to the target with grooves

A161 H. GHOMI Effect of an oblique magnetic field on a plasma sheath consisting two-species positive ions

A162 A. KUDRIN Damping of whistler modes guided by cylindrical plasma structures

A163 A. KUDRIN Whistler wave propagation in a magnetic-field duct

- A165 Liu HONG Synchrotron radiation in electron acceleration through the resonance of high magnetic field and intense laser
- A167 N. MUNGKUNG Experimental study on the stability arc of a low – current vacuum arc for copper based cathode material
- A168 M. ALES Emissive probe measurements in the DC low temperature magnetized plasma in cylindrical configuration
- A169 A. YAKIMENKO Stable multisolitary structures in plasmas with nonlocal nonlinearities
- A170 O. WATARU Collective modes in pair fullerene-ion plasma
- A171 A. NIKNAM Nonlinear propagation of high frequency electromagnetic wave into the underdense plasma
- A172 V. GALAYDYCH Unconventional surface electromagnetic waves at plasma-vacuum boundary
- A173 T. SIVERSKY Kinetic Alfvén instability driven by non-uniform currents
- A174 G. GOGOBERIDZE Dissipation range of the anisotropic plasma turbulence
- A175 I. VORGUL Theory of horseshoe maser instability
- A176 K. TAKAHASHI Polarization-reversal-induced absorption of an axisymmetric left-hand polarized wave on electron cyclotron resonance
- A177 A. IVANOV Plasma chaos near the threshold amplitude
- A178 A. IVANOV Threshold phenomenon for damping of a Langmuir wave of finite amplitude
- A181 R. SCHRITTWIESER Space charge effects of emissive probes, investigated in a DP-machine
- A183 H. TOTSUJI Spin-Polarized Electrons in Quantum Dots Simulated by Classical Mapping
- A184 DARIO BORGOGNO New results on 3D collisionless magnetic reconnection
- A185 ALAVI KHADIJEH Construction of some Macroscopical Properties of Plasma State through Thermodynamical Approach
- A186 A. KOCHETOV Self-consistent Electromagnetically Driven Langmuir Turbulence
- A187 K. YADAV VIPIN ECR breakdown experiments in a cylindrical system
- A188 A. SPOROV Electromagnetic Non-Symmetric Wave in Cylindrical Waveguide Structure Partially Filled by Magnetized Dissipative Non-Uniform Plasma

- A189 Esfandyari-Kalejahi Abdolrasoul Higher-order nonlinear contributions to ion-acoustic waves in a plasma consisting of adiabatic warm ions, non-isothermal electrons and a weakly relativistic electron beam
- A190 V. MILANTIEV On the relativistic ponderomotive force
- A191 G. MURTAZA Color collective modes and linear Landau damping in quark-gluon plasma
- A192 V. PAVLENKO Influence of an upper-hybrid pump on temperature relaxation process in a magnetized plasma
- A193 I. POTAPENKO New direct simulation method for the Boltzmann equation with long-range forces and for the Landau equation
- A194 J. SOOD Reflectivity of low-energy photons from one and two dimensional rare hot quantum and classical plasmas
- B130 K. WATANABE Effects of MHD instabilities on confinement properties of high beta heliotron plasmas
- B132 L. SOTO A mega ampere gas emebded Z-pinch driven by SPEED2 generator
- B135 A. MOZGOVOY Compact toroid formation
- B136 A. TYKHYY Mitigation of stochastic diffusion losses in optimized stellarators
- B138 N. GRISHANOV Radio frequency wave dissipation by electron Landau damping in tokamaks with Solov'ev equilibrium
- B139 F. PORCELLI Recent progress on the undersatnding of sawtooth oscillations in tokamak plasmas
- C143 T. GAUDETTE Astro Capacitance Fusion Propulsion
- C144 A. SHARMA Stationary self focusing of Gaussian electromagnetic beams in the ionosphere
- C145 I. VORGUL Numerical and laboratory simulations of auroral cyclotron radiation processes
- C146 Ahmadizadeh Toorzani Yadollah Electromagnetic Wave Scattering from the Relativistic Electron Beam
- C147 R. BOSWELL New concepts in space thrusters
- C148 V. MUNOZ Kinetic effects on the parametric decays of Alfvén waves in relativistic pair plasmas
- C149 O. SAMCHUK Whistler mode transition radiation of the modulated electron beam on the smooth plasma boundary
- C150 Y. KYZYUROV Plasma irregularities in the lower ionosphere

C151 M. LEVASHOVA Quasiclassical kinetics of highly excited atomic states population in laboratory and astrophysical plasmas

C154 V. BELASHOV Spectral approach to numerical integration of the GKP-class equations in the problems of nonlinear wave dynamics simulation

C155 I. CAIRNS Type-III solar radio bursts: an archetypal stochastic growth system

D166 V. TRAVKIN Homogeneous and Heterogeneous Scale Representation of Solid State Plasma Fields

D167 O. MANUILENKO Electrons Stochastic Heating in Capacitive RF Discharges by Plasma Oscillations

D168 S. MORDYK High-plasma-density helicon source for ion beam application

D169 P. REYES Study of the plasma emission lines of different gases in air

D170 S. PUGACH Influence of electronegative admixture on atmospheric pressure discharge in N₂/O₂ mixture

D171 S. SHARMA Effect of beam pre-bunching on gain and efficiency in Cerenkov free electron laser

D172 A. GAPON Gas discharge sustained by surface waves propagating along the hybrid system

D174 A. GAPON Exact solution of wave equations in the p[lasma resonant point vicinity

D176 A. GAPON Ion free fall gas discharge regime modeling by Schrodinger equation

D177 L. SIMONCHIK Peculiarities of the gas temperature profiles in the dc atmospheric pressure glow discharge

D178 B. TSYDYPOV Heat transfer on system thermionic cathode – near-electrodes plasma

D179 P. RUTBERG Monitoring and control of operating parameters of ac plasma generators as a part of plasmochemical installations

E119 E. MARTYSH Dust ion acoustic structures in complex lossy plasma

E121 X. ADAMOVICH Estimation of dusty plasma parameters from measurements of characteristic frequency of macroparticle oscillation

E122 X. ADAMOVICH Examination of equations of state for quasi- two-dimensional dissipative systems with Yukawa interaction

E123 CHIA-LING CHAN Visco-elasticity in a Sheared Coulomb Liquid

- E124 O. VAULINA Electrostatic plasma oscillations and the kinetic energy of a charged macroparticle in weakly ionized plasma
- E125 S. ANTIPOV Dynamic phenomena in cryogenic dc discharge dusty plasmas
- E126 B. ELIASSON Electromagnetic effects on thermal instabilities in nonuniform dusty tokamak edges
- E127 P. SHUKLA Instability modes in dusty space and laboratory plasmas
- E128 I. DRANZHEVSKI Transport of macroparticles in two-dimensional Yukawa systems
- E129 O. KRAVCHENKO Dynamics of dust particles in radio frequency discharges
- E130 S. MAIOROV Brownian motion of a dust grain in a plasma
- E131 S. MAIOROV Influence of the ion collisions on the interaction between dust grains and drag force
- E133 S. MAIOROV Charging of dust grain and screening in a plasma at cryogenic gas temperatures
- E134 C. KOJIMA Complex plasma experiment in cryogenic environment
- E135 H. TOTSUJI Critical Phenomena in Dusty Plasmas Modeled by Yukawa System
- E136 P. SAKANAKA Nonlinear phenomena in four component dusty plasma with charge fluctuation
- E137 A. GAVRIKOV Experimental and Theoretical Study of the Interaction Potential and Thermodynamic Functions of Dusty Plasma
- E139 N. VORONA Experimental Investigation of Electron Beam Action on Dusty Plasma Structures
- E140 M. SHAFIQ Test charge response for a dusty plasma with size distribution and charging dynamics
- E141 R. BINGHAM A Quasi-Particle Approach To Modulational Instabilities Driven By Broadband Turbulence In Plasmas
- E142 M. VASILIEV DC discharge dust vortex as a Rayleigh-Benard convection cell
- E143 A. FLORKO Plasma characteristics in the front of a laminar diffusion two-phase flame of iron
- E145 V. VISHNYAKOV Displacement of ionization equilibrium in the thermal plasma with electric current
- E146 I. DENYSENKO Properties of rf complex plasmas
- E147 A. MOMOT Grain screening in semi-bounded plasmas
- E148 A. SAMARIAN Two-particle System in a Plasma Sheath

- E149 A. SAMARIAN Deposition of Coulomb Clusters: Control and Stability
- E150 M. KRETSCHMER New measurements of the force distribution inside the 'void' of a complex plasma in microgravity
- E151 K. MONDAL Electrostatic waves in a magnetized dusty plasma in presence of dust streaming
- E152 V. VISHNYAKOV Electron and ion number densities in the space-charge layer in thermal plasma
- E153 V. VISHNYAKOV Floating potential of the thermal plasma–metal contact

19.00 Concert of the L. Revutsky Capella

May 25 Thursday

Plenary Session 4

8.30 Hiroshi YAMADA Study on magnetic configuration to enhance energy confinement and high beta regime in the Large Helical Device
9.15 Oleg PETROV Structure and transfer phenomena in dusty plasma liquid

10.00 Coffee Break

Topical Review Session A2

10.30 Andrei SMOLYAKOV Nonlinear effects in inductively coupled plasmas
11.00 Volodymyr ZASENKO Particle Diffusion in External Field of Random Langmuir Waves
11.30 Kohnosuke SATO Unique laser oscillations by shock-wave heated plasma and supersonic nozzle flow
12.00 Nodar TSINTSADZE Nonlinear dynamics of incoherent strong radiation in a plasma

Topical Review Session E1

10.30 Sergey VLADIMIROV Collective particle dynamics in complex plasmas
11.00 Gregor MORFILL Recent results in the study of dusty plasmas
11.30 Padma SHUKLA Collective dust plasma interactions

12.30 Lunch Break

14.00-18.30 Tour around Kiev

19.00 Congress Dinner

May 26 Friday

Plenary Session 5

8.30 Masaaki YAMADA Recent development of research on magnetic reconnection and magnetic self-organization in laboratory and space astrophysical plasmas

9.15 Akira MIZUNO Industrial applications of atmospheric non-thermal plasma in environmental remediation

10.00 Coffee Break

Topical Review Session B4

10.30 Emmanuel JOFFRIN Extension of the operational domain of the “hybrid” scenario

11.00 Yaroslav KOLESNICHENKO Magnetohydrodynamic activity and energetic ions in fusion plasmas

Topical Review Session D2

10.30 Milan HRABOVSKY Treatment of waste materials in thermal plasma

11.00 Ivan ONISHCHENKO Wake-fields excitation in plasma/dielectric for advanced acceleration schemes

Topical Review Session E2

11.30 Vladimir FORTOV Intense shock waves and strongly compressed plasmas

12.00 Lunch Break

14.00 GENERAL DISCUSSION:

Plasma Physics Education

15.00 CLOSING