SUNDAY – 14th of September

16:00 – 19:00 REGISTRATION
IST CONGRESS CENTRE

MONDAY – 15th of September

8:30 – 9:00 REGISTRATION
IST CONGRESS CENTRE

ROOM 1
9:00-10:30, Chair – G. Morales
9:00, B. Gonçalves (Head of IPFN) – Welcoming address;
9:15, V. Fortov, STRONGLY NONIDEAL PLASMA-DENSITY AND CHARGE COUPLING;
10:00, N. Kasuya, SIMULATION STUDY OF HYSTERESIS IN THE FLUX-GRADIENT RELATION IN TURBULENT TRANSPORT;

10:30 – 11:00, COFFEE BREAK

ROOM 1
11:00-12:30, MCF Session, Chair – S. Benkadda
11:00, Ph. Morrison, HAMILTONIAN AND ACTION PRINCIPLE DERIVATIONS OF REDUCED MAGNETOFLUID MODELS FOR PLASMA DYNAMICS – CONSEQUENCES;
11:30, H. Tsuchiya, IMPACT OF STOCHASTIZATION OF MAGNETIC FIELDS ON INTERNAL TRANSPORT BARRIER IN LHD;
12:00, G.J. Morales, SHEAR ALFVÉN WAVES IN ITER PLASMAS AND THE ION-ION HYBRID RESONATOR;
12:15, A.G. Elfimov, GEODESIC MODE SPECTRUM MODIFIED BY THE ENERGETIC PARTICLES IN TOKAMAK PLASMAS;

ROOM 2
11:00-12:30, LTP Session, Chair – J.P. Booth
11:00, S. Baalrud, EXTENSIONS AND APPLICATIONS OF THE BOHM CRITERION;
11:30, J. Amorin-Filho, STUDY OF AN ATMOSPHERIC PRESSURE ARGON MICROPLASMA JET;
12:00, A. Todoran, CONTROL OF THE PARTICLE FLUX AND ENERGY AT THE SUBSTRATE IN AN INVERTED CYLINDRICAL MAGNETRON REACTOR FOR PLASMA PVD;
12:15, V. Nosenko, PARTICLE PAIRING IN COMPLEX PLASMAS;

12:30 – 14:00, LUNCH BREAK

ROOM 1
14:00-15:30, MCF Session, Chair – A. Sen

14:00, R. Ganesh, LARGE SCALE PARTICLE-IN-CELL SIMULATION OF STEADY STATE MICROTURBULENCE IN TOKAMAKS;

14:30, A. Smolyakov, ZONAL FLOWS AND GEODESIC ACOUSTIC MODES;

15:00, G. Gladush, COMPACT TOKAMAK PLASMA - NEUTRON SOURCE FOR HYBRID REACTOR FOR PRODUCING FUEL 233U;

15:15, A.M. de Aguilera, PARTICLE TRANSPORT RESPONSE TO DYNAMICAL DENSITY GRADIENTS AS A FUNCTION OF MAGNETIC WELL IN THE TJ-II STELLARATOR;

ROOM 2

14:00-15:30, BAP Session, Chair – G. Brodin

14:00, W. Gekelman, EXPERIMENTAL INVESTIGATION OF THE EMERGENCE OF CHAOS IN THE DYNAMICS OF CURRENT SHHETS AND FLUX ROPES;

14:30, B. Zelener, ULTRACOLD PLASMA AND RYDBERG ATOMS IN A MAGNETIC FIELD.

15:00, V. Belashov, DYNAMICS OF IGW AND TRAVELING IONOSPHERIC DISTURBANCES IN PLASMA OF IONOSPHERE WITH SHARP GRADIENTS OF BASIC PARAMETERS OF MEDIUM;

15:15, G. Mamatsashvili, SUBCRITICAL TURBULENCE IN 2D MHD PLANE SHEAR FLOWS -- SELF-SUSTENANCE VIA INTERPLAY OF LINEAR TRANSIENT GROWTH AND NONLINEAR TRANSVERSE CASCADE.

ROOM 3

14:00-15:30, COST MEETING, Chair D. Batani, Ph. Zeitoun

14:00, G.A. Pavlov, IMAGE REGISTRATION OF DENSE PLASMA CLOTS IN THE HARD X-RAY RANGE;

14:15, Ph. Nicolai, DEMONSTRATION OF LASER IMPRINT REDUCTION USING UNDERDENSE FOAMS AND ITS CONSEQUENCES ON THE HYDRODYNAMIC INSTABILITY GROWTH;

14:30, V. Bychenkov, OPTIMIZATION STUDY OF LASER TRIGGERED ION ACCELERATION FOR RADIATION SOURCES OF SOCIALLY SIGNIFICANT APPLICATIONS;

14:45, D. Del Sorbo, NONLOCAL TRANSPORT MODEL BASED ON ENTROPIC CLOSURE OF MOMENT EQUATIONS;

15:00, I.B. Foldes, HIGH HARMONICS FROM NOBLE GAS CLUSTERS;

15:15, A.A. Andreev, MULTI-STAGE ION ACCELERATION IN ELECTRIC FIELD OF A FOILS IRRADIATED BY ULTRA-INTENSE LASER PULSES.

15:30 – 16:00, COFFEE BREAK

CONGRESS CENTRE HALL
16:00 – 17:30, POSTER SESSION 1: MCF, LTP

ROOM 3

16:00-18:00, COST MEETING, Chair D. Batani, Ph. Zeitoun

16:00, A. Inglebert, IONIC SPECIES SEPARATION IN THE HOT SPOT OF MARGINALLY IGNITING TARGETS;

16:15, O. Renner, K-SHELL X-RAY DIAGNOSIS OF HOT ELECTRON GENERATION IN LASER-IRRADIATED CU FOILS;

16:30, V. Stancalie, SIMULATION OF THE IONIZATION DYNAMICS OF ALUMINUM IRRADIATED BY INTENSE SHORT-PULSE LASERS;
16:45, T. Akhter, STABILIZING EFFECTS IN A SELF-MODULATED LONG RELATIVISTIC CHARGED-PARTICLE BEAM TRAVELLING IN A PLASMA;
17:00, N.E. Andreev, ELECTRON ACCELERATION AND X-RAYS GENERATION IN THE INTENSE LASER-MATTER INTERACTIONS;
17:15, A. Vallet, SEMI-ANALYTIC MODELING OF SHOCK IGNITION.

20:00 – 21:30, RECEPTION
MUSEU DA CIDADE

TUESDAY – 16th of September

ROOM 1
9:15-10:30, Chair – R. Bingham
9:15, R. Dendy, ION CYCLOTRON EMISSION FROM FUSION-BORN IONS IN LARGE TOKAMAK PLASMAS: FROM JET AND TFTR TO ITER;
10:00, S. Baton, EXPERIMENTS ON SHOCK IGNITION: WHAT HAS BEEN DONE;

10:30 – 11:00, COFFEE BREAK

ROOM 1
11:00-12:30 LPB Session, Chair – A. Cairns
11:00, F. Pegoraro, LASER-DRIVEN RADIATION PRESSURE ACCELERATION AND RAYLEIGH-TAYLOR INSTABILITY;
11:30, J.J. Santos, PULSED KTESLA DIPOLAR MAGNETIC FIELD GENERATION BY LASER AND APPLICATIONS.
12:00, N.K. Verna, TERAHERTZ RADIATION GENERATION VIA LASER-MAGNETIZED PLASMA INTERACTION;
12:15, M. Tayyab, EFFECT OF LASER CHIRP ON PROTON ACCELERATION IN THIN FOIL TARGETS;

ROOM 2
11:00-12:30, LTP Session, Chair – M. Hellberg
11:00, Amita Das, COLLECTIVE BEHAVIOR OF STRONGLY COUPLED DUSTY PLASMA;
11:30, O. Petrov, TWO-DIMENSIONAL MELTING OF DUST CRYSTAL IN PLASMA: SIMULATIONS, DIAGNOSTICS AND EXPERIMENTS;
12:00, L.L. Alves, THE LXCAT PROJECT;
12:15, J.L. Ferreira, DEVELOPMENT OF PERMANENT MAGNET HALL THRUSTERS FOR APPLICATIONS ON FUTURE BRAZILLIAN SPACE MISSIONS;

12:30 – 14:00, LUNCH BREAK

ROOM 1

14:00-15:30, LPB Session, Chair Ph. Zeitoun

14:00, P. Koester, EXPERIMENTAL STUDIES ON FAST ELECTRON TRANSPORT IN RELATIVISTIC LASER-MATTER INTERACTIONS;

14:30, A. Cairns, THE ROLE OF COLLISIONLESS SHOCKS IN SOME LASER-PLASMA PROBLEMS;

15:00, B. Ramakrishna, GENERATION OF ENERGETIC PARTICLES IN INTENSE LASER MATTER INTERACTION;

15:15, N.K. Jaiman, RELATIVISTIC HARMONICS GENERATION BY ULTRASHORT AND ULTRAINTENSE LASER PULSE DRIVEN HIGH DENSITY PLASMA;

ROOM 2

14:00-15:30, LTP Session, Chair J. Loureiro

14:00, Atsushi M. Ito, MOLECULAR DYNAMICS AND DENSITY FUNCTIONAL SIMULATIONS FOR CLASSIFICATION OF HYDROGENATED AMORPHOUS CARBON;

14:30, V.V. Andreev, INVESTIGATION OF IMPACT OF THE ELECTRIC DISCHARGES ON ORGANOSILICON VARNISH FILM APPLIED ON THE TEXTOLYTE SURFACE;

14:45, A. Fedoseev, DUST CLOUD FORMATION IN THE STRIATION OF A DC GLOW DISCHARGE IN HELIUM;

15:00, G. Sukhinin, POLARIZATION OF "DUST QUASI-ATOMS" IN AN EXTERNAL ELECTRIC FIELD;

15:15, K. Sasaki, RESPONSES OF OH(X) AND OH(A) TO THE ELECTRICAL CURRENT OF DIELECTRIC BARRIER DISCHARGE IN A PLASMA-ASSISTED BURNER FLAME.

15:30 – 16:00, COFFEE BREAK

ROOM 1

16:00-18:00, LPB Session, Chair M. Koenig

16:00, M. Fajardo, PROBING SOLID DENSITY PLASMAS GENERATED BY X-RAY FREE ELECTRON LASERS WITH AN ULTRASHORT HIGH HARMONIC SOURCE;

16:30, M. Murakami, PROTON BEAM GENERATION BY NANOTUBE ACCELERATOR;

17:00, Tong-Pu Yu, ULTRA-BRIGHT SYNCHROTRON-LIKE GAMMA RAYS FROM LASER WIRE TARGET INTERACTION;

17:15, D. Bleiner, SHORT-WAVELENGTH PLASMA RADIATION FOR TABLE-TOP NANO-INSPECTION;

17:30, M. Skoric, INTENSE COMPRESSION AND AMPLIFICATION OF ATTOSECOND PULSES BY LASER LIGHT REFLECTION FROM RELATIVISTIC ELECTRON MIRRORS;

17:45, A. Yogo, ION ACCELERATION VIA "STOCHASTIC VACUUM HEATING".

18:00-19:00, Open Session, FABRE PRIZE

Special session dedicated to the announcement of the winner of the first FABRE PRIZE for contributions to Inertial Fusion and Laser Plasma Interaction.

ROOM 2

16:00-18:00, BAP Session, Chair R. Fedele

16:00, V. Filinov, QUANTUM SIMULATION OF THERMODYNAMIC AND TRANSPORT PROPERTIES OF THE QUARK-GLUON PLASMA;

16:30, S. Ter-Avetisyan, MEV NEGATIVE AND NEUTRAL ATOM BEAMS;

16:45, C. Ruyer, FORMATION OF WEIBEL-MEDIATED COLLISIONLESS SHOCKS: ANALYTICAL MODEL FOR SYMMETRIC COLLIDING FLOWS AND NUMERICAL STUDY OF LASER-DRIVEN SHOCKS IN OVERDENSE PLASMAS;

17:00, R. Horiuchi, COLLISIONLESS DRIVEN RECONNECTION UNDER THE INFLUENCE OF STRONG GUIDE MAGNETIC FIELD IN AN OPEN SYSTEM;

17:15, O. Pezzi, COLLISIONAL EFFECTS ON ION-ACOUSTIC SOLITARY WAVES PROPAGATION;

17:30, A. Okamoto, INTERACTION BETWEEN ION BEAM AND RECOMBINING HYDROGEN PLASMA IN RADIO-FREQUENCY DISCHARGE DIVERTOR SIMULATING DEVICE;

17:45, C.P. Olivier, POLARITY SWITCHES OF ACOUSTIC SOLITONS IN MULTI-COMPONENT SPACE PLASMAS.

WEDNESDAY – 17th of September

ROOM 1

9:15-10:30, Chair – D. Batani

9:15, R. Betti, STATUS AND PROSPECTS FOR BURNING PLASMAS VIA LASER FUSION

10:00, Kerchung Shaing, NEOCLASSICAL TRANSPORT THEORY FOR ORBITS WITH FINITE WIDTH IN TOKAMAKS;

10:30 – 11:00, COFFEE BREAK

ROOM 1

11:00-13:00, MCF Session, Chair – R. Galvão

11:00, S. Krasheninikov, PHYSICS OF THE EDGE PLASMA AND FIRST WALL IN FUSION DEVICES: SYNERGISTIC EFFECTS;

11:30, Daniel Klir, EFFICIENT GENERATION OF FUSION NEUTRONS IN RECENT Z-

PINCH EXPERIMENTS;
12:00, Z. Guimarães Filho, CHARACTERIZATION OF MHD INSTABILITIES IN TCABR TOKAMAK;
12:30, D. Bonfiglio, HELICAL SELF-ORGANIZATION IN 3D MHD MODELING OF FUSION PLASMAS;

ROOM 2

11:00-13:00, BAP Session, Chair – C. Forest

11:00, D. Speirs, SCALED LABORATORY EXPERIMENTS AND NUMERICAL SIMULATIONS OF AURORAL MAGNETOSPHERIC RADIO EMISSION;
11:30, M. Aramaki, PRECISE CONTROL AND DIAGNOSTICS OF PLASMA USING TUNABLE DIODE LASERS;
12:00, F. Haas, RELATIVISTIC HYDRODYNAMIC EQUATIONS FOR FULLY DEGENERATE PLASMA;
12:30, G. Brodin, EXCHANGE EFFECTS IN PLASMAS: QUANTUM KINETIC THEORY;
12:45, A. Bret, COLLISIONLESS WEIBEL SHOCKS: FULL FORMATION MECHANISM AND TIMING.

13:00 – 18:00, LUNCH BREAK + EXCURSION

THURSDAY – 18th of September

ROOM 1

9:15-10:30, Chair – L. Soto

9:15, Katsumi Ida, EXPERIMENTAL PROGRESS OF TRANSPORT PHYSICS IN TOROIDAL PLASMAS.
10:00, C. Forest, STIRRING UNMAGNETIZED PLASMAS: DYNAMOS IN THE LAB;

10:30 – 11:00, COFFEE BREAK

ROOM 1

11:00-12:30, MCF Session, Chair – P. Sakanaka

11:00, H.J. Hole, ADVANCED MHD MODELS OF ANISOTROPY, FLOW AND CHAOTIC FIELDS;
11:30, I. Caldas, ISOCHRONOUS ISLAND CHAINS MULTIPLICITY FOR WAVE-PARTICLE INTERACTIONS;
11:45, **R. Henriques**, THE HEAVY ION BEAM DIAGNOSTIC FOR PLASMA FLUCTUATION STUDIES AT THE TOKAMAK ISTTOK;
12:00, G. Tynan, OBSERVATION OF INWARD TURBULENT FLUX AGAINST DENSITY GRADIENT WITH SPATIALLY DISTINCT MULTIPLE FREE ENERGY SOURCES;
12:15, J. Bernardo, DENSITY IMPACT ON TOROIDAL ROTATION IN TORE SUPRA:

EXPERIMENTAL OBSERVATIONS AND THEORETICAL INVESTIGATION;

ROOM 2

11:00-12:30 LTP Session, Chair – J.L. Ferreira

11:00, G. Hagelaar, LOW-TEMPERATURE PLASMA TRANSPORT ACROSS MAGNETIC FIELDS: FROM ELECTRIC PROPULSION AND NEGATIVE ION SOURCES TO TOKOMAK EDGE PLASMAS;

11:30, A. Janeco, A GLOBAL MODEL FOR DBD CONVERSION OF CH4/CO2;

11:45, Y. Yasaka, CONTROL OF SPATIAL PLASMA PROFILE IN SLOT-EXCITED MICROWAVE DISCHARGES BY USING INVERSE SIMULATION;

12:00, J.A. Silva, CHARACTERIZATION OF ATMOSPHERIC PRESSURE PLASMA-GROWN SINX:H FILMS;

12:15, E. Ahedo, MAGNETIZED PLASMA PHYSICS IN MAGNETIC NOZZLES FOR SPACE ELECTRIC PROPULSION;

12:30 – 14:00, LUNCH BREAK

ROOM 1

14:00-15:30, LPB Session, Chair F. Pegoraro

14:00, A. Lifschitz, SELF-INJECTION AND STABILITY IN LASER-PLASMA ACCELERATORS;

14:30, O. Rosmej, INVESTIGATIONS OF HYDRODYNAMIC, ABSORPTION AND RADIATIVE PROPERTIES OF X-RAY HEATED LOW DENSITY FOAMS FOR EXPERIMENTS ON HEAVY ION STOPPING IN PLASMAS;

15:00, I. Potapenko, KINETIC SIMULATION OF HEAT TRANSPORT IN COLLISIONAL LASER PRODUCED PLASMAS;

15:15, G. Fiore, A “SLINGSHOT” LASER-DRIVEN ACCELERATION MECHANISM OF PLASMA ELECTRONS.

ROOM 2

14:00-15:30, LTP Session, Chair V. Guerra

14:00, T. Nozaki, NON-THERMAL PLASMA-ASSISTED FUEL CONVERSION FOR GREEN CHEMISTRY;

14:30, T. Shiraishi, DEVELOPMENT AND PERFORMANCE INVESTIGATION OF DUAL-GROUNDED TRI-ELECTRODE PLASMA ACTUATOR

14:45, G. D’Ammando, STATE-TO-STATE MODELS FOR HIGH ENTHALPY NOZZLE AND SHOCK TUBE FLOWS;

15:00, Xiaolong Deng, PREPARATION OF AGNPS DECORATED NON-WOVEN FABRICS USING AN ATMOSPHERIC PRESSURE NONEQUILIBRIUM PLASMA;

15:15, Jaeho Kim, OPTICAL DIAGNOSTICS OF ATMOSPHERIC PRESSURE MICROWAVE-EXCITED PLASMA JETS;

15:30 – 16:00, COFFEE BREAK

CONGRESS CENTRE HALL
16:00-17:30, POSTER SESSION 2: LPB, BAP

LOCATION – PALÁCIO CONDE D'ÓBIDOS
20:00-23:00, CONFERENCE DINER

FRIDAY – 19th of September

ROOM 1
9:30-10:30, Chair – L.O. Silva
9:30, IUPAP PhD Prize, T.B.A.
10:00, A. Raga, WEAK SHOCK WAVES IN ASTROPHYSICAL AND GEOPHYSICAL FLOWS;

10:30 – 11:00, COFFEE BREAK

ROOM 1
11:00-12:30, BAP Session, Chair – A. Serbeto
11:00, M.A. Mochalov, STRONG SHOCK WAVES AND EXTREME STATES OF MATTER;
11:30, T. Kaladze, EXCITATION OF ZONAL FLOW AND MAGNETIC FIELD BY ULF PLANETARY WAVES IN THE EARTH´S IONOSPHERIC E-LAYER;
11:45: Z. Ehsan, NONLINEAR LANDAU DAMPING OF EMWS AND ITS INTERDESCIPLINARY APPLICATIONS;
12:00, C.Z. Cheng, PHYSICS OF 2-1/2D DRIVEN COLLISIONLESS MAGNETIC RECONNECTION;
12:15, **N.S. Saini**, NONLINEAR KINETIC ALFVEN WAVES IN A TWO TEMPERATURE ELECTRONS PLASMAS;

ROOM 2
11:00-12:30, LTP Session, Chair – Amita Das
11:00, A. Bogaerts, COMBINED PLASMA CHEMISTRY AND PLASMA-SURFACE INTERACTIONS MODELING FOR CO2 CONVERSION BY GAS DISCHARGE PLASMAS;
11:30, P. Bruggeman, ELECTRON DENSITIES AND ENERGIES OF FILAMENTARY ATMOSPHERIC PRESSURE PLASMAS;

12:00, F. Gaboriau, EXPERIMENTAL STUDY OF MAGNETIZED ELECTRON TRANSPORT IN LOW TEMPERATURE PLASMAS IN CLOSED AND BOUNDED DRIFT CONFIGURATIONS;
12:15, T. Silva, CHARACTERIZATION OF MICROWAVE GASEOUS DISCHARGES FOR DISSOCIATION OF CO2;

12:30 – 14:00, LUNCH BREAK

ROOM 1

14:00-15:30, PAB Session, Chair – A. Cairns

14:00, F. Tanjia, LONGITUDINAL CHARGE-PARTICLE DYNAMICS INDUCED BY AN ULTRA-SHORT RELATIVISTIC ELECTRON BUNCH IN PLASMAS;
14:15, B. Van Compernolle, INTERMITTENT PROFILE COLLAPSE IN A BASIC HEAT TRANSPORT EXPERIMENT;
14:30, Ph. Korneev, LASER PRODUCED PLASMA INTERACTION WITH STRONG MAGNETIC FIELDS IN APPLICATIONS TO ASTROPHYSICAL STUDIES;
14:45, L. Bilbao, UNSTABLE VELOCITY GRADIENT FLOWS WITH ALIGNED MAGNETIC FIELD: THEORY AND OBSERVATION ASPECTS OF A NEAR EARTH SPACE PLASMA EVENT;
15:00, R. Sydora, ANOTHER VIEW ON ELECTRON BEAM-PLASMA INTERACTION AND RELATED PHENOMENA;
15:15, M.A. Amato, CHARGED PARTICLES IN THE HMF MODEL;

ROOM 2

14:00-15:30, LTP Session, Chair E. Tatarova

14:00, S. Mitic, STAR-SHAPED DENSITY FLUCTUATIONS IN A CAPACITIVELY-COUPLED LOW PRESSURE, XENON RF DISCHARGE;
14:15, M. Irie, THE "STABLE" HELICAL MODE IN ARC DISCHARGE.
14:30, F.E.M. Silveira, AXISYMMETRIC INSTABILITIES FOR PLASMA COLUMNS WITH PARABOLIC PROFILE: CURRENT RELAXATION AND INDUCTIONLESS APPROXIMATION;
14:45, E. Sternberg, DYNAMICS OF A LASER-ABLATED MOLYBDENUM PLUME;
15:00, T. Nakamura, THRUST PERFORMANCE OF PERMANENT MAGNET TYPE HELICON PLASMA THRUSTER IN VARIOUS MAGNETIC FIELD DISTRIBUTIONS;
15:15, M. Lino da Silva, STATE-TO-STATE MODELING OF HIGH-SPEED, NONEQUILIBRIUM SHOCKED FLOWS.

15:30 – 16:00, COFFEE BREAK

ROOM 1

16:00-17:00, Chair – F. Cheng

16:00, A. Hamagushi, LIQUID-PHASE CHEMICAL REACTIONS INDUCED BY LOW-TEMPERATURE ATMOSPHERIC-PRESSURE PLASMAS RELEVANT OT PLASMA MEDICINE;

16:30, R. Bingham, J.T. Mendonça, CLOSING REMARKS.

16:45, CONFERENCE CLOSURE