

## Conference/Workshop Timetable

	Sept. 22, Monday	Sept. 23, Tuesday	Sept. 24, Wednesday	Sept. 25, Thursday	Sept. 26, Friday	Sept. 27, Saturday
Chairmen	<b>Session I</b> I. Neklyudov A. Zagorodny	<b>Session III (adjoint Workshop)</b> S. Mirnov, V. Tereshin	<b>Session V</b> M. Gryaznevich Ya. Kolesnichenko	<b>Session VII</b> M. Sadowski V. Vdovin	<b>Session IX</b> T. Klingler A. Krasilnikov	<b>Session XII</b> I. Anisimov I. Onishchenko
9:15- 9:30	<b>OPENING</b>					
9:30-10:05	V. Tereshin – Jubilee Lecture	<b>I-03</b> M. Gryaznevich	<b>I-07</b> A. Krasilnikov	<b>I-01</b> T. Klingler	<b>I-17</b> O. Agren	(9:30) 5-1 O. Cheremnykh
10:05-10:40	<b>I-06</b> M. Petrov	<b>I-13</b> A. Zagorodny	<b>I-11</b> V. Vdovin	<b>I-15</b> F. Tabares	<b>I-18</b> E. Kruglyakov	(9:50) 2-2 I. Potapenko
10:40-11:15	<b>I-05</b> J. Stockel	<b>I-12</b> V. Mikhailenko	<b>I-08</b> K. Yushchenko	<b>I-16</b> S. Mirnov	1-6 A. Ivanov 1-7 A. Burdakov	(10:10) 2-1 I. Pavlenko 4 (10:30) 4-1 G. Murtaza (10:50) 4-3 V. Yaroshenko
11:15-11:40	<b>Coffee break</b>	<b>Coffee break</b>	<b>Coffee break</b>	<b>Coffee break</b>	<b>Coffee break</b>	<b>CLOSING</b>
Chairmen	<b>Session II</b> M. Petrov G. Van Oost	<b>Session IV (adjoint Workshop)</b> V. Chechkin, J. Stockel	<b>Session VI</b> E. Kruglyakov K. Yushchenko	<b>Session VIII</b> F. Tabares V. Voitsenya	<b>Session X</b> O. Agren V. Astashynski	
11:40-12:15	<b>I-02</b> Ya. Kolesnichenko	<b>I-04</b> G. Van Oost	<b>I-10</b> S. Pestchanyi	<b>I-14</b> M. Sadowski	3-6 S. Ryzhkov 6-4 O. Kravchenko	
12:15-12:35	1-1 V. Chechkin	1-4 J. Brotankova	3-1 V. Safronov	8-1 V. Astashynski	6-1 E. Skladnik-Sadowska	
12:35-12:55	1-2 A. Danilov	1-8 L. Krupnik	3-2 I. Garkusha	4-4 V. Zhovtyansky	6-2 M. Rabinski	
12:55-13:15	1-3 Yu. Kuznetsov	1-34 A. Zhezhera	3-3 V. Moiseenko	8-2 A. Veklich	6-3 A. Kozlov	
13:15-13:35	1-10 S. Kasilov	1-9 A. Lysenko	3-4 G. Gladush	8-4 V. Taran	8-3 I. Denysenko	
13:35-13:55	1-5 Yu. Yakovenko	1-36 I. Pankratov	3-5 V. Voitsenya	8-7 S. Olshevskii	1-11 A. Mozgovoy	
14:00	<b>Lunch</b>	<b>Lunch</b>	<b>Lunch</b>	<b>Lunch</b>	<b>Lunch</b>	
16:45	<b>Coffee</b>	<b>Coffee</b>	<b>Coffee</b>		<b>Coffee</b>	
17:00-19:00	<b>Poster Session I</b> V. Taran	<b>Poster Session II</b> V. Buts	<b>Poster Session III</b> V. Chebotarev	<b>Excursion</b>	<b>Session XI</b> N. Azarenkov, A. Egorov	
	Topics: Magnetic confinement Plasma Heating and Current Drive Basic Plasma Physics Plasma Electronics Plasma Technologies Plasma Diagnostics	Topics: Magnetic confinement Basic Plasma Physics Plasma Electronics Plasma Technologies Plasma Diagnostics	Topics: Magnetic confinement ITER and FR Aspects Space Plasma Plasma Dynamics Plasma Technologies Plasma Diagnostics		7-1 I. Onishchenko	<u>17:00-17:20</u>
					7-6 I. Anisimov	<u>17:20-17:40</u>
					7-3 I. Girka	<u>17:40-18:00</u>
					7-4 V. Karas	<u>18:00-18:20</u>
				7-5 V. Buts	<u>18:20-18:40</u>	
				7-2 V. Maslov	<u>18:40-19:00</u>	
19:30-22:30	<b>Welcome Party</b>				<b>Conference Dinner</b>	

## Monday 22<sup>th</sup> September

### 9.15-11.15 SESSION I (Hall A)

Chaired by I. Neklyudov and A. Zagorodny

9.15

#### *Opening Ceremony*

9.30

#### JUBILEE LECTURE

V. Tereshin

10.05 I-06 **NBI AND ICR HEATING IN *GLOBUS-M* SPHERICAL TOKAMAK AND IN *TUMAN-3M* CONVENTIONAL TOKAMAK OF THE IOFFE INSTITUTE**

M.P. Petrov

10.40 I-05 **REINSTALLATION OF THE COMPASS TOKAMAK AT IPP PRAGUE**

J. Stöckel, R. Pánek, O. Hronova, P. Bilkova, Vl. Fuchs, M. Hron, P. Pavlo, R. Dejarnac, J. Urban, Vl. Weinzettl, J. Zajac and F. Žáček

### 11.15-11.40 Coffee Break

### 11.50- 13.55 SESSION II (Hall A)

Chaired by M Petrov and G. Van Oost

11.40 I-02 **THEORY OF SUB-GAM MODES IN TOROIDAL PLASMAS AND MODELLING OF THEIR OBSERVATIONS IN WENDELSTEIN 7-AS**

Ya.I. Kolesnichenko, V.V. Lutsenko, Yu.V. Yakovenko, A. Weller, H. Thomsen, A. Werner, J. Geiger

12.15 1-1 **SPECIFICS OF H-TRANSITION IN THE RF DISCHARGE PLASMA OF THE URAGAN-3M TORSATRON**

V.V. Chechkin, L.I. Grigor'eva, Ye.L. Sorokovoy, E.L. Sorokovoy, A.A. Beletskii, A.S. Slavnyj, Yu.S. Lavrenovich, E.D. Volkov, P.Ya. Burchenko, S.A. Tsybenko, A.V. Lozin, A.Ye. Kulaga, N.V. Zamanov, D.V. Kurilo, Yu.K. Mironov, V.S. Romanov

12.35 1-2 **PRESSURE PROFILE STIFFNESS AND HEAT AND PARTICLE TRANSPORT IN TOKAMAKS**

S.V. Cherkasov, A.V. Danilov, A.Yu. Dnestrovskij, Yu.N. Dnestrovskij, S.E. Lysenko, C.M. Roach and M. Walsh

12.55 1-3 **EFFECT OF MHD INSTABILITY ON ELECTROSTATIC TURBULENCE AND EDGE TRANSPORT BARRIER IN TCABR TOKAMAK**

Yu.K. Kuznetsov, I.C. Nascimento, Z.O. Guimarães-Filho, I.L. Caldas, R.L. Viana R.M.O. Galvão, J.H.F. Severo

13.15 1-10 **EFFECT OF THE ANOMALOUS TRANSPORT ON THE INTERACTION OF RESONANT MAGNETIC FIELD PERTURBATIONS WITH TOKAMAK PLASMAS**

M. F. Heyn, I. B. Ivanov, S. V. Kasilov, W. Kernbichler, M. Mulec

13.35 1-5 **EFFECT OF THE TOROIDAL ASYMMETRY OF STELLARATOR CONFIGURATIONS ON THE STRUCTURE OF TAE MODES**

Yu.V. Yakovenko, Ya.I. Kolesnichenko, V.V. Lutsenko, A. Weller, A. Werner, H. Thomsen

### 14.00-15.00 Lunch

### 16.45-17.00 Coffee break

### 17.00-19.00 POSTER SESSION I (Hall B)- 55 posters

Chaired by V. Taran

**Topics: 1- Magnetic confinement (reports 1-12 – 1-22)**

**2- Plasma Heating and Current Drive (reports 2-3 – 2-4)**

**4 – Basic Plasma Physics (reports 4-2, 4-5 – 4-18)**

**7 - Plasma Electronics (reports 7-7 – 7-16)**

**8 - Low Temperature Plasma and Plasma Technologies (reports 8-6, 8-8 – 8-23)**

## Monday 22<sup>th</sup> September

17.00-19.00

### POSTER SESSION I

Poster №	Abstract №	Title
1	1-12	<b>GENERATION AND CONFINEMENT OF PLASMA IN MODERNIZED TRAP GALATHEA “TRIMYX-M”</b> A.I.Morozov, <u>A.M.Bishaev</u> , A.I.Bugrova, M.V.Kozintseva, A.S.Lipatov A.A.Pushkin, V.M.Strunnikov, V.I.Vasil’ev
2	1-13	<b>TOKAMAK EDGE AND DIVERTOR MODEL (SOL-DINA CODE)</b> <u>G.G. Gladush</u> , V.N. Dokuka, R.R. Khayrutdinov
3	1-14	<b>MAGNETIC DIAGNOSTICS ON THE COMPASS TOKAMAK</b> O. Hronová, J. Havlíček, J. Horáček, M. Hron, I. Ďuran, <u>J. Stöckel</u>
4	1-15	<b>STUDY OF NEOCLASSICAL TRANSPORT IN THE <math>1/\nu</math> REGIME FOR THE <math>l=2</math> TORSATRON WITH THE CENTERED PLANAR MAGNETIC AXIS</b> V.N. Kalyuzhnyj
5	1-16	<b>CALCULATIONS OF <math>1/\nu</math> TRANSPORT FOR Uragan-2M TORSATRON TAKING INTO ACCOUNT THE INFLUENCE OF THE CURRENT-FEEDS AND DETACHABLE JOINTS OF THE HELICAL WINDING FOR <math>k_\phi = 0.295</math></b> V.V.Nemov, <u>V.N.Kalyuzhnyj</u> , S.V.Kasilov, W.Kernbichler, G.G.Lesnyakov, B.Seiwald, N.T.Besedin
6	1-17	<b>THE METHOD FOR IN SITU MONITORING OF THE QUALITY OF IN-VESSEL MIRRORS IN A FUSION REACTOR</b> <u>V.G. Konovalov</u> , M.N. Makhov, A.N. Shapoval, I.V. Ryzhkov, A.F. Shtan’, S.I. Solodovchenko, V.S. Voitsenya
7	1-18	<b>MAGNETIC SURFACES OF <math>l=4</math> STELLARATOR WITH THE REGARD FOR HELICAL COIL ANGULAR SIZE AND CONDUCTOR TURN PACKING</b> <u>V.G. Kotenko</u> , E.D. Volkov
8	1-19	<b>THE <math>l=2</math> TORSATRON WITH THE CENTERED PLANAR MAGNETIC AXIS</b> <u>V.G.Kotenko</u> , E.D.Volkov
9	1-20	<b>OUTFLOW OF FAST IONS TO THE HELICAL DIVERTOR OF THE U-3M TORSATRON</b> <u>Ye.L. Sorokoviy</u> , V.V. Chechkin, L.I. Grigor’eva, E.L. Sorokoviy, A.A. Beletskii, A. S. Slavnyj, Yu. S. Lavrenovich, E. D. Volkov, P.Ya Burchenko, S. A. Tsybenko, A. V. Lozin, A. Ye. Kulaga, N. V. Zamanov, D. V. Kurilo, Yu. K. Mironov, V. S. Romanov
10	1-21	<b>MULTISLIT ELECTROMAGNETIC TRAP “JUPITER F”</b> <u>O.A. Lavrent’ev</u> , V.A. Maslov, N.A. Krutko, V.P. Oboznyj
11	1-22	<b>FIRST RESULTS OF THE RENEWED URAGAN-2M TORSATRON</b> <u>A.A.Beletskii</u> , V.L.Berezhnyj, P.Ya.Burchenko, V.V.Chechkin, V.Ya.Chernyshenko, L.I.Grigor’eva, S.P.Gubarev, V.G.Konovalov, A.E.Kulaga, D.V.Kurilo, G.G.Lesnyakov, A.V.Lozin, S.M.Maznichenko, Yu.K.Mironov, V.E.Moiseenko, F.I.Ozherel’ev, G.P.Opaleva, V.K.Pashnev, O.S.Pavlichenko, A.V.Prokopenko, V.S. Romanov, Yu.F.Sergeev, A.I.Skibenko, A.N.Shapoval, A.F.Shtan’, O.M.Shvets, S.I.Solodovchenko, Ye.L.Sorokovoy, V.S.Taran, I.K.Tarasov, V.I.Tereshin, S.A.Tsybenko, V.S.Voitsenya, E.D.Volkov, M.I.Zolototrubova
12	2-3	<b>FAST WAVE MODE CONVERSION IN MULTICOMPONENT NONUNIFORM PLASMAS</b> <u>Ye.O.Kazakov</u> , I.V.Pavlenko, I.O.Girka, B.Weyssow

## Monday 22<sup>th</sup> September

Poster №	Abstract №	Title
13	2-4	<b>FW CONVERSION INTO IBW NEAR ION-ION HYBRID RESONANCE TAKING INTO ACCOUNT THE LONGITUDINAL MAGNETIC FIELD INHOMOGENEITY</b> A.V. Longinov
14	4-2	<b>CONTINUOUS SYMMETRIES AND SOLUTIONS TO SOME NONLINEAR PLASMA THEORY MODELS</b> V. B. Taranov
15	4-5	<b>SURFACE ELECTROMAGNETIC WAVES AT BOUNDARY BETWEEN METAL AND INHOMOGENEOUS PARTIALLY IONIZED PLASMA</b> N.A. Azarenkov, <u>V.K. Galaydych</u>
16	4-6	<b>2D STEADY-STATE PLASMA FLOWS IN TWO FLUIDS MHD WITH NON-ZERO ELECTRON INERTIA</b> M.B.Gavrikov, V.V.Savelyev
17	4-7	<b>ELECTRON TEMPERATURE GRADIENT DRIFT INSTABILITY IN THE FINITE BETA EDGE PLASMA OF A FIELD REVERSED MAGNETIC CONFIGURATION</b> <u>V.I. Khvesyuk</u> , A.Yu. Chirkov
18	4-8	<b>NONLINEAR ANALYSIS OF THE PLASMA WAVE DECAY</b> <u>V.I. Khvesyuk</u> , D.N. Karbushev
19	4-9	<b>NONLINEAR EFFECT OF PLASMA RADIATION ON SOLID SURFACES EXPOSED TO A PLASMA</b> <u>Yu.A. Akimov</u> , K. Ostrikov
20	4-10	<b>FLUTE MODE INSTABILITY OF ROTATING PLASMA</b> V.I. Ilgisonis, V.P. Lakhin, <u>E.A. Sorokina</u>
21	4-11	<b>OPTIMIZATION OF SURFACE PLASMON ENHANCED ABSORPTION IN THIN FILM SILICON SOLAR CELLS</b> <u>Yu.A. Akimov</u> , K. Ostrikov, N.A. Azarenkov
22	4-12	<b>THE INTERACTION OF TWO DUST PARTICLES IN PLASMAS</b> <u>O.Yu. Kravchenko</u> , A.V. Vakulenko
23	4-13	<b>DIPOLAR ELECTROMAGNETIC WAVES IN COAXIAL STRUCTURE FILLED BY DISSIPATIVE PLASMA WITH AZIMUTH MAGNETIC FIELD</b> N.A. Azarenkov, <u>V.P. Olefir</u> , A.E. Sporov
24	4-14	<b>2D DIFFUSION IN EXTERNAL RANDOM VELOCITY FIELD WITH VARIABLE EULERIAN CORRELATION TIME</b> <u>V. Zasenko</u> , A. Zagorodny, J. Weiland
25	4-15	<b>A DSMC METHOD FOR THE LANDAU-FOKKER-PLANCK EQUATION</b> <u>I.F. Potapenko</u> , A.V. Bobylev, E. Mossberg
26	4-16	<b>PROPERTIES OF ELECTROMAGNETIC WAVES THAT PROPAGATE ALONG THE LEFT-HAND MATERIAL SLAB</b> N.A. Azarenkov, Yu.A. Akimov, V.K. Galaydych, <u>V.P. Olefir</u> , A.E. Sporov
27	4-17	<b>THE NUMERICAL MODELLING OF THE STATIONARY GLOW DISCHARGE IN SPHERICAL GEOMETRY</b> <u>V.A. Zhovtyansky</u> and Yu.I. Lelyukh
28	4-18	<b>ELECTRON SURFACE CYCLOTRON TM – MODES PROPAGATING IN SPATIALLY NON-UNIFORM PLASMA WAVEGUIDE</b> <u>V.O. Girka</u> , I.O. Girka, A.M. Kondratenko
29	7-7	<b>DYNAMICS OF 1D ELECTRON BUNCH WITH THE INITIALLY RECTANGULAR DENSITY PROFILE INJECTED INTO PLASMA</b> <u>I.O. Anisimov</u> , Yu.M. Tolochkevych

## Monday 22<sup>th</sup> September

Poster №	Abstract №	Title
30	7-8	<b>THE ANALYSIS OF OPERATION OF PLASMA-FILLED HELICAL TWT TAKING INTO ACCOUNT SPATIAL HARMONICS</b> <u>V.S. Antipov</u> , I.A. Bez'yazychny, I.V. Berezhnaya, A.V. Borodkin, K.V. Galaydych, E.A. Kornilov, G.V. Sotnikov
31	7-9	<b>THE DYNAMICS OF DECAY PROCESSES IN RARE PLASMA</b> A.N. Antonov, V.A. Buts, I.K. Koval'chuk, O.F. Kovpik, E.A. Kornilov, V.G. Svichensky, D.V. Tarasov
32	7-10	<b>NONRELATIVISTIC DYNAMICS OF THE CHARGED PARTICLES AT CYCLOTRON RESONANCES</b> V.A. Buts, A.P. Tolstoluzhsky
33	7-11	<b>EXCITATION OF HARMONICS BY FLOWS OF THE CHARGED PARTICLES IN THE MAGNETIC FIELD</b> V.A. Buts, A.M. Yegorov, A.P. Tolstoluzhsky
34	7-12	<b>INFLUENCE OF CASUAL DISTRIBUTIONS ON RESONANT PROPERTIES OF NONLINEAR OSCILLATOR ENSEMBLES</b> V.A. Buts
35	7-13	<b>TRUE QUANTUM CHAOS</b> <span style="float: right;">V.A. Buts</span>
36	7-14	<b>EXPERIMENTAL INVESTIGATION OF PECULIARITIES OF THE BEAM-PLASMA DISCHARGE INITIAL STAGE</b> <u>B.I. Ivanov</u> , V.P. Prishchepov
37	7-15	<b>ACCELERATION OF ELECTRONS AT WAKEFIELD EXCITATION BY A SEQUENCE OF RELATIVISTIC ELECTRON BUNCHES IN DIELECTRIC RESONATORS</b> <u>V.A. Kiselev</u> , A.F. Linnik, V.I. Mirnyj, I.N. Onishchenko, V.V. Uskov
38	7-16	<b>WAKEFIELD EXCITATION IN PLASMA RESONATOR BY A SEQUENCE OF RELATIVISTIC ELECTRON BUNCHES</b> V.A. Kiselev, A.F. Linnik, V.I. Mirnyj, I.N. Onishchenko, V.V. Uskov
39	8-6	<b>Al<sub>2</sub>O<sub>3</sub> COATINGS IN VACUUM-ARC DISCHARGE</b> V.V. Gasilin, V. S. Voitsenya, V.G. Konovalov, S.I. Solodovchenko, R.M. Muratov, Yu.N. Nezovibat'ko, <u>V.S. Taran</u> , V.I. Tereshin, O.M. Shvets
40	8-8	<b>STRUCTURE-PHASE TRANSFORMATIONS OF THE SYSTEM "METAL COATING – SILICON" MODIFIED BY THE ACTION OF COMPRESSION PLASMA FLOW</b> V.V. Uglov, <u>V.M. Astashynski</u> , N.T. Kvasov, N.N. Cherenda, V.V. Askerko, Yu.A. Petukhou, A.V. Punko
41	8-9	<b>EMISSION CHARACTERISTICS AND POTENTIAL OF MACROPARTICLE IN BEAM-PLASMA DISCHARGE</b> A.A. Bizyukov, A.I. Girka, E.V. Romaschenko, K.N. Sereda, A.D. Chibisov
42	8-10	<b>LOCAL ELECTRON CYCLOTRON RESONANCE IN A VERY HIGH FREQUENCY NEUTRAL LOOP DISCHARGE</b> <u>A.V. Arsenin</u> , V.G. Leiman, V.P. Tarakanov
43	8-11	<b>EXPERIMENTAL STUDY OF STREAMER DISCHARGE IN AIR UNDER HIGH PRESSURE</b> <u>O.V. Bolotov*</u> , V.I. Golota, B.B. Kadolin, V.N. Ostroushko, L.M. Zavada, A.Ju. Shulika

## Monday 22<sup>th</sup> September

Poster No	Abstract No	Title
44	8-12	<b>THE OPTICAL CHARACTERISTICS OF CONTAMINATING FILMS ON MO, SS, CU AND BE MIRROR SAMPLES EXPOSED IN PLASMA DEVICES</b> <u>V.N. Bondarenko</u> , A.I. Belyaeva, A.A. Galuza, V.G. Konovalov, A.D. Kudlenko, I.V. Ryzhkov, A.F. Shtan', S.I. Solodovchenko, V.S. Voitsenya
45	8-13	<b>VISUALIZATION OF TRAJECTORIES OF ELECTRON BEAMS EMITTED BY AN ION SOURCE WITH CLOSED ELECTRON DRIFT</b> <u>I.V. Bordenjuk</u> , O.A. Panchenko, S.V. Sologub, I.G. Brown
46	8-14	<b>PLASMA OF ELECTRIC ARC DISCHARGE BETWEEN COPPER ELECTRODES</b> I.L. Babich, <u>V.F. Boretskij</u> , A.N. Veklich
47	8-15	<b>PLASMA AND ION FLUX UNIFORMITY IN ICP REACTOR</b> <u>A.N. Dahov</u> , S.V. Dudin, A.V. Gapon, V.I. Farenik, N.A. Azarenkov
48	8-16	<b>NANOMORPHOLOGY OF ORGANIC SURFACES AT THE LOW DOSE PLASMA TREATMENT</b> <u>A. Dobrovol'skii</u> , A. Evsyukov, R. Kravchuk, O. Yaroshchuk
49	8-17	<b>HIGH-INTENCIVE HALL-TYPE ION SOURCE WITH BALLISTIC AND MAGNETIC FOCUSING OF ION BEAM</b> A.A. Bizyukov, <u>A.I. Girka</u> , E.V. Romaschenko <sup>1</sup> , K.N. Sereda
50	8-18	<b>MULTI-DIMENSIONAL CODES FOR MODELLING OF PLASMA-SOLID INTERACTION</b> <u>E. Havlíčková</u> , R. Hrach, O. Maršálek, P. Bartoš
51	8-19	<b>APPLICATION OF NONLOCAL APPROACH TO CYLINDRICAL SURFACE WAVE PLASMA</b> A.V. Gapon, S.V. Dudin, A.N. Dahov, N.A. Azarenkov
52	8-20	<b>Ne-Xe MICRODISCHARGE EVOLUTION INSIDE DIELECTRIC CELL</b> O.V. Samchuk, <u>O.I. Kelnyk</u>
53	8-21	<b>DEPOSITION OF TiO<sub>2</sub> THIN FILMS IN ATMOSPHERIC DIELECTRIC BARRIER DISCHARGE</b> <u>Y. Klenko</u> , J. Pichal
54	8-22	<b>INTERACTION BETWEEN TWO SOLITONS IN TWO-DIMENSIONAL COMPLEX PLASMA WITH VARIABLE DUST CHARGE</b> <u>N. Mahdizadeh</u> , M. Aslaninejad
55	8-23	<b>TREATMENT OF MATERIALS BY PLASMA JETS AND SHOCKWAVES GENERATED IN PLASMA FOCUS DEVICE</b> L.I. Ivanov, A.I. Dedyurin, I.V. Borovitskaya, O.N. Krokhin, V.Ya. Nikulin, E.N. Peregudova <sup>2</sup> , <u>A.V. Oginov</u> , P.V. Gorshkov, A.A. Tikhomirov

## Tuesday 23<sup>th</sup> September

### 9.30-11.15 SESSION III and ADJOINT WORKSHOP (Hall A)

Chaired by S. Mirnov and V.I. Tereshin

- 9.30 I-03 **BETA LIMIT STUDIES ON JET**  
M.P. Gryaznevich and JET-EFDA Contributors
- 10.05 I-13 **KINETIC THEORY OF DUSTY PLASMAS AND EFFECTIVE GRAIN INTERACTIONS**  
A. Zagorodny, A.V. Filippov, A.F. Pal', A.N. Starostin, A. Momot
- 10.40 I-12 **TURBULENCE IN SHEAR FLOWS OF MAGNETIZED PLASMA**  
V.S. Mikhailenko, K.N. Stepanov, N.A. Azarenkov, V.V. Mikhailenko, D.V. Chibisov

### 11.15-11.40 Coffee break

### 11.40-14.55 SESSION VI and ADJOINT WORKSHOP (Hall A)

Chaired by J. Stockel and V.V. Chechkin

- 11.40 I-04 **THE ROLE OF TURBULENCE AND ELECTRIC FIELDS IN THE FORMATION OF TRANSPORT BARRIERS AND THE ESTABLISHMENT OF IMPROVED CONFINEMENT IN TOKAMAK PLASMAS THROUGH INTER-MACHINE COMPARISONS**  
G. Van Oost et al.
- 12.15 1-4 **MEASUREMENTS OF PLASMA POTENTIAL AND ELECTRON TEMPERATURE BY BALL-PEN PROBES IN RFX-MOD**  
J. Brotankova, J. Adamek, J. Stockel
- 12.35 1-8 **ROLE OF THE ELECTRIC FIELDS IN PLASMA CONFINEMENT AND TODAY'S STATE OF THE HEAVY ION BEAM PROBE (HIBP) DIAGNOSTIC**  
L.I. Krupnik
- 12.55 1-34 **RECENT MEASUREMENTS OF THE ELECTRIC POTENTIAL PROFILE AND FLUCTUATION IN ECRH AND NBI PLASMAS ON TJ-II STELLARATOR**  
L. Krupnik, A. Melnikov, C. Hidalgo, L. Eliseev, A. Chmyga, A.D. Komarov, A.S. Kozachok, S. V. Perfilov, A. Zhezhera, M.A. Pedrosa, J.L. de Pablos
- 13.15 1-9 **HIBP MEASUREMENTS OF THE ABSOLUTE PLASMA POTENTIAL, RADIAL ELECTRIC FIELD AND POLOIDAL ROTATION VELOCITY IN THE T-10 TOKAMAK**  
S.V. Perfilov, A.V. Melnikov, L.G. Eliseev, S.E. Lysenko, V.A. Mavrin, R.V. Shurygin, D.A. Shelukhin, V.A. Vershkov, G.N. Tilinin, S.A. Grashin, L.I. Krupnik, A.D. Komarov, A.S. Kozachek and G. Van Oost
- 13.35 1-36 **INFLUENCE OF AN EXTERNAL LOW FREQUENCY HELICAL PERTURBATION ON BALLOONING MODES**  
I.M. Pankratov, A.Ya. Omelchenko

### 14.00-15.00 Lunch

### 16.45-17.00 Coffee break

Tuesday 23<sup>th</sup> September

17.00-19.00

POSTER SESSION II (Hall B)- 55 posters

Chaired by V. Buts

Topics: 1- Magnetic confinement (reports 1-23 – 1-33)

4- Basic Plasma Physics (reports 4-19 – 4-29)

7 - Plasma Electronics (reports 7-17 – 7-29)

8 - Low Temperature Plasma and Plasma Technologies (reports 8-25 – 8-37),

9 - Plasma Diagnostics (reports 9-2, 9-3, 9-5 – 9-9)

Poster No	Abstract. No	Title
1	1-23	<b>ESTIMATIONS OF LIMITING PLASMA PARAMETERS IN OH REGIMES WITH A LOW-LEVEL RADIATION LOSS IN T-10 AND T-15 TOKAMAKS</b> V.G. Merezhkin
2	1-24	<b>SINGLE PARTICLE SIMULATION IN THE VICINITY OF SEPARATRIX UNDER TOKAMAK X-POINT SWEEPING</b> <u>A.O.Moskvitin</u> , <u>A.A. Shishkin</u>
3	1-25	<b>EFFECT OF THE RESONANCE PHENOMENA ON HIGH ENERGETIC PARTICLE LOSSES IN CLOSED MAGNETIC TRAP WITH THE ROTATIONAL TRANSFORM OF THE MAGNETIC FIELD</b> <u>Yu.K. Moskvitina</u> , <u>A.A. Shishkin</u>
4	1-26	<b>MEASUREMENT OF PLASMA POSITION USING MAGNETIC PROBE IN <i>IR-TI</i> TOKAMAK</b> <u>A. Salar Elahi</u> , A. Rahimi Rad, M. Ghoranneviss, M.Emami, Sh. Vahedi, M.K. Salem, R. Arvin, S. Mohammadi
5	1-27	<b>ROLE OF RADIAL ELECTRIC FIELD IN <i>LH</i> TRANSITION TRIGGERED BY COUNTER-NBI AT LOW PLASMA DENSITY IN THE TUMAN-3M TOKAMAK</b> S.V. Lebedev, L.G. Askinazi, F.V. Chernyshev, V.E. Golant, M.A. Irzak, V.A. Kornev, S.V. Krikunov, L.I. Krupnik, A.D. Melnik, D.V. Razumenko, V.V. Rozhdestvensky, A.A. Rushkevich, A.I. Smirnov, <u>A.S. Tukachinsky</u> , M.I. Vild'junas, N.A. Zhubr
6	1-28	<b>STUDY OF THE EDGE PLASMA TURBULENCE DEPENDENCE ON VARIATION OF THE MAGNETIC FIELD CONFIGURATION IN THE T-10 TOKAMAK</b> <u>S.A.Grashin</u> , V.P.Budaev, P.V.Savrukhin
7	1-29	<b>PROBABILITY DISTRIBUTION FUNCTIONS OF DENSITY FLUCTUATIONS IN THE SOL AND DIVERTED PLASMAS OF THE URAGAN-3M TORSATRON</b> <u>A.A. Beletskii</u> , L.I. Grigor'eva, E.L. Sorokovoy, V.V. Chechkin, Y.L. Sorokovoy, Ye.D. Volkov, P.Ya. Burchenko, A.Ye. Kulaga, S.A. Tsybenko, A.V. Lozin, A.S. Slavnyj, Yu.S. Lavrenovich, N.V. Zamanov, Yu.K. Mironov, V.S. Romanov
8	1-30	<b>DEVELOPMENT OF THE SYSTEM FOR MULTICHANNEL MICROWAVE PLASMA PROBING IN THE TORSATRON U-2M</b> <u>V.L. Berezhenyj</u> , V.L. Ocheretenko, I.B. Pinos, A.I. Skibenko, A.V. Prokopenko, Yu.V. Larin, S.M. Maznichenko, I.K. Tarasov, D.A. Sitnikov, M.I. Tarasov
9	1-31	<b>KINK STABILITY AND RESISTIVE LAYER STRUCTURE OF INTERNAL KINK IN THE CYLINDRICAL PLASMA</b> A. Guryn



## Tuesday 23<sup>th</sup> September

Poster №	Abstract. №	Title
10	1-32	<b>HIBP RESULTS ON THE WEGA STELLARATOR</b> L. Krupnik, Y. Podoba, M. Otte, F. Wagner, I. Bondarenko, A. Chmyga, G. Deshko, A. Komarov, A. Kozachok, S. Khrebtov, A. Zhezhera, A. Melnikov, S. Perfilov, M. Schubert
11	1-33	<b>HIBP DIAGNOSTIC FOR URAGAN-2M STELLARATOR</b> I. Bondarenko, O. Chmyga, G. Deshko, O. Komarov, O. Kozachek, L. Krupnik, S. Khrebtov, O. Zhezhera
12	4-19	<b>SURFACE CYCLOTRON O-MODES PROPAGATING IN PLASMA-FILLED WAVEGUIDES</b> <u>V.O. Girka</u> , A.V. Klyzhka
13	4-20	<b>ADIABATIC IONIC-SOUND WAVES. REDUCED DESCRIPTION METHOD</b> A. Stupka
14	4-21	<b>NON-LOCAL STABILITY ANALYSIS OF PLASMA CYLINDER, CONSISTING OF COLD ELECTRONS AND SMALL ADDITION OF IONS, BORN AT REST</b> Yu. N. Yeliseyev
15	4-22	<b>ION CYCLOTRON INSTABILITIES OF PARALLEL SHEAR FLOW OF COLLISIONAL PLASMA</b> <u>V.V. Mikhailenko</u> , V.S. Mikhailenko, K.N. Stepanov
16	4-23	<b>DISPERSION RELATIONS FOR FIELD-ALIGNED CYCLOTRON WAVES IN THE LABORATORY DIPOLE MAGNETOSPHERIC PLASMAS WITH ANISOTROPIC TEMPERATURE</b> <u>N.I. Grishanov</u> , N.A. Azarenkov, A.G. Kovalenko
17	4-24	<b>FAST COMPUTATION OF THE EXACT PLASMA DISPERSION FUNCTIONS</b> <u>S.S. Pavlov</u> , F. Castejón, A. Cappa, M. Tereshchenko
18	4-25	<b>OSCILLATIONS AND WAVES IN THE DRIFTING ELECTRON PLASMA</b> M.I. Tarasov, I.K. Tarasov, E.D. Volkov
19	4-26	<b>DRIFT OSCILLATIONS SUPPRESSION DURING THE ELECTRON PLASMA DECAY</b> M.I. Tarasov, I.K. Tarasov, E.D. Volkov
20	4-27	<b>THE PHENOMENA OF HYSTERESIS IN ELECTRON PLASMA IN CROSSING ELECTRIC AND MAGNETIC FIELDS</b> D.A. Sytnykov, I.K. Tarasov, M.I. Tarasov, A.V. Paschenko, E.D. Volkov
21	4-28	<b>EFFECT OF DUST PARTICLES ON ELECTRON ENERGY DISTRIBUTION FUNCTION AND EFFECTIVE ELECTRON TEMPERATURE IN DUSTY PLASMAS</b> I. Denysenko, N.A. Azarenkov, K. Ostrikov
22	4-29	<b>CHARGE EXCHANGE PROCESSES FROM THE COLLISIONS OF ALPHA PARTICLES WITH WATER MOLECULES</b> M.V. Vavrukh, <u>B.O. Seredyuk</u> , R.W. McCullough
23	7-17	<b>ION SOURCES OPTIMIZATION FOR HIGH ENERGY ION IMPLANTATION BY COMPUTER SIMULATION</b> <u>I. V. Litovko</u> , V. I. Gushenets
24	7-18	<b>POSSIBILITY OF THE USAGE OF ACTIVE MEDIA WITH ELECTRON BEAMS FOR ION ACCELERATION</b> A.G. Lyman
25	7-19	<b>PIC SIMULATION OF NONLINEAR WAKEFIELD EXCITATION BY A TRAIN OF ELECTRON BUNCHES IN A WAVEGUIDE WITH ISOTROPIC PLASMA</b> P.I. Markov, I.N. Onishchenko, G.V. Sotnikov

## Tuesday 23<sup>th</sup> September

Poster №	Abstract №	Title
26	7-20	<b>GROWTH OF SPREAD IN VELOCITY OF CHARGED PARTICLES AT SCATTERING OF MONOCHROMATIC ELECTROMAGNETIC WAVE</b> V.V. Ognivenko
27	7-21	<b>MAGNETO-PLASMA SEPARATION AS A METHOD FOR REPROCESSING OF SPENT FUEL AND RADIOACTIVE WASTE</b> A.M. Yegorov, <u>E.I. Skibenko</u> , Yu.V. Kovtun, V.B. Yuferov
28	7-22	<b>INVESTIGATION OF THE HIGHER AXIAL SYMMETRIC MODES INTERACTION IN THE CYLINDRICAL MAGNETOACTIVE PLASMA FILLED WAVEGUIDE WITH A FINITE CORRUGATION DEPTH</b> V. I. Tkachenko, I.V. Tkachenko
29	7-23	<b>PICOSECOND COMMUTATION DEVICE PROJECT RELYING UPON THE EFFECT OF BORDER ELECTRON LAYER EJECTION FROM METAL TARGET WHEN ILLUMINATED BY POWER LASER PULSES</b> I.I. Neganov, M.V. Fedorov, <u>M.A. Yakovlev</u>
30	7-24	<b>THE DYNAMICS OF THE GAS PLASMA TORCH INDUCED BY THE HIGH CURRENT REB ON SOLID STATE TARGETS</b> V.F. Klepikov, V.V. Lytvynenko, Yu.F. Lonin, A.G. Ponomaryov, O.G. Tolstolutskiy, V.V. Uvarov, V.T. Uvarov
31	7-25	<b>TRANSITION RADIATION INDUCED BY NONRELATIVISTIC ELECTRON BUNCHES</b> V.N. Bolotov, <u>S.I. Kononenko</u> , V.I. Muratov, V.D. Fedorchenko
32	7-26	<b>KINETIC EFFECTS IN THE LOCAL PLASMA RESONANCE REGION EXCITED BY MODULATED ELECTRON BEAM: 2D SIMULATION</b> D.M. Velykanets', T.Eu. Litoshenko, <u>I.O. Anisimov</u>
33	7-27	<b>DIFFERENT REGIMES OF DISCHARGE IN NITROGEN-OXYGEN GAS MIXTURES IN THE FRAMES NEEDLE-PLANE AT HIGH PRESSURES: DC &amp; PULSED POWER SUPPLY</b> V.I. Golota, <u>V.I. Karas`</u>
34	7-28	<b>BLOCK OF AN ELECTRON GUN COMBINED WITH A GETTER-ION PUMP DESIGNED FOR HIGH-POWER BEAM-PLASMA MICROWAVE DEVICES</b> A.N. Antonov, A.M. Egorov, <u>O.F. Kovpik</u> , E.A. Kornilov, V.G. Svichensky
35	7-29	<b>SIMULATION OF PLASMA WAKEFIELD EXCITATION BY A SEQUENCE OF RELATIVISTIC ELECTRON BUNCHES</b> K.V. Lotov, V.I. Maslov, I.N. Onishchenko, E. Svistun
36	8-25	<b>DISSIPATIVE STRUCTURE OF GLOW DISCHARGE</b> <u>O.P. Ponomaryov</u> , I.O. Anisimov
37	8-26	<b>ELECTROMAGNETIC FIELDS AND HEAVY-ION ORBITING IN A LOW-TEMPERATURE PLASMA WITH A MAGNETIC PUMPING</b> <u>K. P. Shamrai</u> and E. N. Kudriavchenko
38	8-27	<b>A MAGNETRON SET UP WITH THE HEMISPHERICAL CONCAVE CATHODE</b> <u>B. Stetsenko</u> , A. Schurenko, Yu. Zavyalov
39	8-28	<b>DEPENDENCE OF THE ELECTRIC FIELD AT AN APEX TIP OF FIELD EMISSION CATHODE FROM AN ANODE VOLTAGE AND A CATHODE SHAPE</b> <u>B. Stetsenko</u> and A. Schurenko
40	8-29	<b>THE ORIGIN OF TRANSVERSAL DISPLACEMENT OF PLASMA FLOW MOVING IN A CURVILINEAR MAGNETIC FIELD</b> A.I. Timoshenko

## Tuesday 23<sup>th</sup> September

Poster №	Abstract. №	Title
41	8-30	<b>THE DYNAMICS AND DIRECTIONS OF EXTREME ULTRAVIOLET RADIATION FROM PLASMA OF THE HIGH-CURRENT PULSE DIODE</b> <u>A.F. Tseluyko</u> , V.T. Lazuryk, D.V. Riabchikov, V.I. Maslov, N.A. Azarenkov, I.N. Sereda, D.V. Zinov'ev, N.N. Yunakov, A.A. Makienko
42	8-31	<b>INFLUENCE OF TEMPERATURE CONDITION ON THE PROCESS OF CNM GENERATION</b> <u>Iu.P. Veremii</u> , V.Ya. Chernyak, S.V. Olszewski, V.O. Forostyanij
43	8-32	<b>ION ENERGY SPREAD OF A 27.12 MHZ MULTICUSP ION SOURCE</b> <u>V.I.Voznyy</u> , V.I. Miroshnichenko, S.N. Mordyk, V.E. Storizhko, D.P. Shulha
44	8-33	<b>INFLUENCE OF THE COMBINED SUPPLY VOLTAGE PARAMETRES ON OZONE SYNTHESIS IN PULSED CORONA DISCHARGE</b> <u>S.N. MAN'KOVSKIY</u> , L.M. ZAVADA, A.YU. SHULIKA
45	8-34	<b>THE PLANAR MAGNETRON DISCHARGE EXTINCTION AT LOW PRESSURE</b> S.D. Yakovin, A.V. Zykov, S.V. Dudin
46	8-35	<b>SYNTHESIS OF FINE PARTICLES DURING PLASMA SPRAY PYROLYSIS PROCESS</b> V. Valinčius, P. Valatkevičius, V. Grigaitienė, L. Marcinauskas, M. Milieška
47	8-36	<b>LOW TEMPERATURE PLASMA IN PROBLEMS OF FUEL CONVERSION AND MEDICINE WASTE PROCESSING</b> O.V. Chernets, V.M. Korzhyk, G.S. Marynsky, S.V. Petrov a, <u>V.A. Zhovtyansky</u>
48	8-37	<b>ON THE INFLUENCE OF ALUMINIUM AND IRON IMPURITIES ON THE THERMAL CONTRACTION OF AN ARGON ARC</b> P.V. Porytsky
49	9-2	<b>EUV EMISSION SPECTRA FROM EXCITED Ar, Xe AND Sn IONS PRODUCED IN CAPILLARY DISCHARGES</b> <u>K.Nowakowska-Langier</u> , L. Jakubowski, E.O. Baronova, K. Czaus, M. Rabinski, J. Witkowski, M.J. Jakubowski, R. Mirowski
50	9-3	<b>CORRELATION BETWEEN TIME-RESOLVED AND INTEGRAL SOFT X-RAY EMISSION IN A PLASMA FOCUS OPERATED IN ARGON</b> <u>S.P. Eliseev</u> , V.Ya. Nikulin, S.N. Polukhin, P.V. Silin
51	9-5	<b>TRANSITION RADIATION OF A MODULATED ELECTRON BEAM IN PLASMA WITH CONDUCTIVE DUST PARTICLES</b> I.O.Anisimov, <u>I.M.Voronov</u>
52	9-6	<b>SOFT X-RAY MEASUREMENT BY SPPD11-04 DETECTORS ON THE PF "TULIP" INSTALLATION</b> <u>S.P. Eliseev</u> , V.Ya. Nikulin, S.N. Polukhin and P.V. Silin
53	9-7	<b>HIGH RESOLUTION FAST SPECTROMETER FOR HYDROGEN ISOTOPIC COMPOSITION MEASUREMENTS IN ITER</b> <u>A.A.Medvedev</u> , A.V.Gorshkov, O.V.Sannikov, D.K.Vukolov, K.Yu.Vukolov
54	9-8	<b>AUTOMATION OF PLASMA DENSITY PROFILE ANALYSIS BY THE MULTICHANNEL MICROWAVE INTERFEROMETER MEASUREMENTS FOR THE TORSATRON U-2M</b> <u>V.L. Ocheretenko</u> , V.L. Berezhenyj, A.I. Skibenko, A.V. Prokopenko, I.B. Pinos
55	9-9	<b>RETARDING FIELD ENERGY ANALYZERS FOR ION TEMPERATURE MEASUREMENTS IN THE BOUNDARY PLASMAS OF THE TOKAMAK ISTTOK AND TJ-II STELLARATOR</b> <u>I.S. Nedzelskiy</u> , C. Silva, H. Fernandes, C. Hidalgo

## Wednesday 24<sup>th</sup> September

### 9.30-11.40 SESSION V (Hall A)

Chaired by M.Gryaznevich and Ya.Kolesnichenko

- 9.30 I-07 **STATUS OF THE DEVELOPMENT AND MANUFACTURE OF THE SYSTEMS IN FRAME OF RF CONTRIBUTION TO ITER**  
E.P.Velikhov, A.V.Krasilnikov, O.G.Filatov, G.G.Denisov, V.A.Belyakov, V.M.Korzhavin, V.I.Pantsyrny, V.P.Smirnov, Yu.S.Strebkov, V.E.Sytnikov, A.K.Shikov
- 10.05 I-11 **CRITICAL PROBLEMS IN PLASMA HEATING/CD IN LARGE FUSION DEVICES AND ITER**  
V.L.Vdovin
- 10:40 I-08 **PROBLEMS OF WELDING AND PERFORMANCE OF WELDED JOINTS IN A NUMBER OF MATERIALS UNDER THERMAL FORCE AND RADIATION LOADING**  
K.A. Yushchenko, V.V. Derlomenko, V.I. Tereshin

### 11.15-11.40 Coffee break

### 11.40-13.55 SESSION VI (Hall A)

Chaired by E.Kruglyakov and K.Yushchenko

- 11.40 I-10 **ITER DIVERTOR ARMOUR ISSUES: LIFETIME, SAFETY AND INFLUENCE ON ITS PERFORMANCE**  
S. Pestchanyi
- 12.15 3-1 **INVESTIGATION OF EROSION MECHANISMS AND EROSION PRODUCTS IN DIVERTOR ARMOUR MATERIALS UNDER CONDITIONS RELEVANT TO ELMS AND MITIGATED DISRUPTIONS IN ITER**  
V.M. Safronov, N.I. Arkhipov, N.S. Klimov, D.V. Kovalenko, I.S. Landman, A.A. Moskachova, V.L. Podkovyrov, I.M. Pozhyak, D.A. Toporkov, A.M. Zhitlukhin
- 12.35 3-2 **PLASMA-SURFACE INTERACTION DURING ITER TRANSIENT EVENTS: SIMULATION WITH QSPA Kh-50**  
I.E. Garkusha, N.N. Aksenov, A.N. Bandura, O.V. Byrka, V.V. Chebotarev, V.V.Garkusha, N.V. Kulik, I. Landman, J.Linke, V.A. Makhraj, V.I. Tereshin
- 12.55 3-3 **FUSION WITH FISSION POWER AMPLIFICATION**  
V.E.Moiseenko, O.Ågren, K.Noack and S.P.Fomin
- 13.15 3-4 **COMPACT TOKAMAK AS VOLUMETRIC NEUTRON SOURCE FOR DECISION OF PROBLEMS OF NUCLEAR POWER**  
E.Azizov, G.Gladush, V. Dokuka, A.Lopatkin, A.Mineev, N.Obysov, V.Smirnov, Yu.Strebkov, R.Khayrutdinov
- 13.35 3-5 **OPTICAL PROPERTIES OF AL MIRRORS UNDER IMPACT OF DEUTERIUM PLASMA IONS IN EXPERIMENTS SIMULATING ITER CONDITIONS**  
V.S.Voitsenya, A.F.Bardamid, A.I. Belyaeva, V.N.Bondarenko, M.V. Dobrotvorskaya, A.A. Galuza, V.G.Konovalov, I.V.Ryzhkov, A.F.Shtan', K.A.Slatin, S.I.Solodovchenko

### 14.00-15.00 Lunch

### 16.45-17.00 Coffee break

## Wednesday 24<sup>th</sup> September

17.00-19.00 **POSTER SESSION III (Hall B)- 56 posters**

Chaired by V. Chebotarev

- Topics:** 1- Magnetic confinement (reports 1-35, 1-37 – 1-45)  
3- ITER and Fusion Reactor Aspects (reports 3-7 – 3-11)  
5- Space Plasma (reports 5-2 – 5-4)  
6 - Plasma Dynamics and Plasma-Wall Interaction (reports 6-5 – 6-13)  
8 - Low Temperature Plasma and Plasma Technologies (reports 8-24, 8-38 – 8-54),  
9 - Plasma Diagnostics (reports 9-1, 9-4, 9-10 – 9-16) PD-1

Poster №	Abstract. №	Title
1	1-35	<b>TWO-FLUID DESCRIPTION OF ALFVEN-DRIFT AND SOUND-DRIFT MODES IN TOROIDAL PLASMAS</b> Ya.I. Kolesnichenko, <u>V.V. Lutsenko</u> , Yu.V. Yakovenko
2	1-37	<b>CONFINEMENT OF ENERGY IN TORSATRON URAGAN-3M DURING THE RF-HEATING</b> <u>V.K. Pashnev</u> , P.Ya. Burchenko, E.D. Volkov, A.V. Lozin, V.D. Kotsubanov, A.Ye. Kulaga, Yu.K. Mironov, I.K. Nikol'skii, A. A. Petrushenya, V.S. Romanov, D.A. Sitnikov, Ed.L. Sorokovoy, S.A. Tsybenko, N.V. Zamanov
3	1-38	<b>NEOCLASSICAL EFFECTS IN BEHAVIOUR OF PLASMA IN TORSATRON URAGAN-3M</b> V.K. Pashnev, Ed.L. Sorokovoy
4	1-39	<b>INFLUENCE OF PLASMA WITH FINITE PRESSURE ON MAGNETIC CONFIGURATION OF TORSATRON U-3M</b> V.K. Pashnev, P.Ya. Burchenko, E.D. Volkov, A.Ye. Kulaga, A.V. Lozin, Yu.K. Mironov, A. A. Petrushenya, V.S. Romanov, D.A. Sitnikov, Ed.L. Sorokovoy, S.A. Tsybenko, N.V. Zamanov
5	1-40	<b>PLASMA PARAMETERS EVOLUTION DURING RF CONDITIONING IN U-2M TORSATRON</b> A.I. Skibenko, V.L. Berezhenyj, P.Ya. Burchenko, V.V. Krasnyj, A.E. Kulaga, A.V. Lozin, V.L. Ocheretenko, O.S. Pavlichenko, V.K. Pashnev, I.B. Pinos, A.V. Prokopenko, A.N. Shapoval, O.M. Shvets, I.K. Tarasov, M.I. Tarasov, S.A. Tsybenko, E.D. Volkov, N. V. Zamanov
6	1-41	<b>ACTIVE ANTENNA ARRAY FOR STUDY THE INTERACTION BETWEEN BROADBAND ELECTROMAGNETIC OSCILLATIONS AND PLASMA</b> I.K. Tarasov
7	1-42	<b>THE INTERACTION BETWEEN BROADBAND ELECTROMAGNETIC OSCILLATIONS AND PLASMA</b> I.K.Tarasov
8	1-43	<b>THE PARAMETRICAL EXCITATION OF BERNSTEIN MODES AT THE ICR PLASMA HEATING IN THE U-3M TORSATRON</b> V.V. Olshansky, K.N. Stepanov, I.K. Tarasov, M.I. Tarasov, D.A. Sutnukov, A.I. Skibenko, E.D. Volkov
9	1-44	<b>UHF DIAGNOSTIC SYSTEM OF URAGAN-2M TORSATRON</b> D.A. Sytnykov, V.L. Berezhenyj, Y.V. Larin, V.L. Ocheretenko, V.K. Pashnev, I.B. Pinos, A.V. Prokopenko, A.I. Skibenko, I.K. Tarasov, M.I. Tarasov, E.D. Volkov
10	1-45	<b>TESTS OF TUNGSTEN LIMITER WITH CONTROLLED HYDROGEN PUFFING IN THE URAGAN-3M TORSATRON</b> <u>G.P. Glazunov</u> , A.A. Andreev, D. I. Baron, M.N. Bondarenko, E.D. Volkov

## Wednesday 24<sup>th</sup> September

Poster №	Abstract. №	Title
11	3-7	<b>PARAMETERS OF L=2 REACTOR-STELLARATOR AT THE USE OF SPATIO-TEMPORAL NUMERICAL KOD, BASED ON NEOCLASSICAL TRANSPORT</b> V.A. Rudakov
12	3-8	<b>THE CONCEPTUAL PROJECT OF THERMONUCLEAR REACTOR BASED ON THE MULTISLIT ELECTROMAGNETIC TRAP</b> O.A. Lavrent'ev, V. A. Maslov, S. V. Germanova, N.A. Krutko, B. A. Shevchuk
13	3-9	<b>INVESTIGATION OF POSSIBILITY TO USE THERMONUCLEAR NEUTRONS FOR RADIOACTIVE WASTE TRANSMUTATION</b> Ye.V. Rudychhev, <u>R.P. Slabospitsky</u> , M.A. Khazhmuradov
14	3-10	<b>AZIMUTHAL SURFACE WAVES IN TOROIDAL MAGNETIC TRAPS</b> <u>I.O.Girka</u> , O.I.Girka, V.O.Girka, I.V.Pavlenko
15	3-11	<b>EXPOSURES OF EU W-CFC COMBINED TARGETS WITH QSPA KH-50 PLASMA STREAMS SIMULATING ITER ELMS</b> <u>V.A. Makhlay</u> , I.E. Garkusha, J. Linke, G. Pintsuk, V.I. Tereshin, A.N. Bandura, V.V. Chebotarev, V.V. Staltsov
16	5-2	<b>TRANSITION RADIATION OF THE ELECTRON ROTATING IN THE DIFFUSE PLASMA BOUNDARY</b> K.S. Musatenko, <u>I.O. Anisimov</u>
17	5-3	<b>EVALUATION OF TURBULENCE INTENSITY IN THE LOWER IONOSPHERE FROM SPORADIC-E THICKNESS</b> Yuriy Kzyurov
18	5-4	<b>PHYSICAL VACUUM AS CRYSTAL-LIKE PLANCK PLASMA</b> <u>M.V. Maksyuta</u> , Eu.V. Martysh
19	6-5	<b>CHARACTERISTICS OF THE MULTI-COMPONENT MAGNETIZED PLASMA SHEATH</b> <u>M.M. Hatami</u> , A.R. Niknam, B. Shokri
20	6-6	<b>THE VOLT-AMPERE CHARACTERISTICS OF THE QUASI-STEADY PLASMA ACCELERATOR (QSPA) WITH A LONGITUDINAL MAGNETIC FIELD</b> S.P. Drukarenko, N.S. Klimov, <u>A.N. Kozlov</u> , A.A. Moskacheva, V.L. Podkovyrov
21	6-7	<b>EFFECT OF ELECTRON EMISSION ON RADIO-FREQUENCY PLASMA SHEATHS</b> <u>O.Yu. Kravchenko</u> , G.I. Levada, I.S. Marushchak, A.V. Vakulenko
22	6-8	<b>OBSERVATION OF SPHERICAL PLASMA BLOBS IN THE PLASMA FOCUS PF-4</b> S.P. Eliseev, V.Ya. Nikulin, <u>S.N. Polukhin</u> , P.V. Silin, <span style="border: 1px solid black; padding: 2px;"><u>A.A. Tikhomirov</u></span>
23	6-9	<b>CURRENT SHEATH STUDIES IN PLASMA FOCUS PF400 BY MAGNETIC FIELD PROBES</b> A. Gurey, V. Nikulin, <u>S.Polukhin</u> , I.Volobuev
24	6-10	<b>THE INFLUENCE OF MAIN CATHODE PARAMETERS ON PLASMA-ION ACCELERATOR DESCRIPTIONS</b> S.Yu. Nesterenko, <u>A.I.Oranskiy</u>
25	6-11	<b>EROSION BEHAVIOR OF TUNGSTEN COATINGS IN MAGNETRON TYPE DISCHARGES WITH HOT CATHODE</b> G.P. Glazunov, <u>M.N. Bondarenko</u> , A.L. Konotopskiy, E.D. Volkov
26	6-12	<b>POROSITY INFLUENCE ON EROSION BEHAVIOR OF CVD TUNGSTEN COATINGS UNDER STEADY STATE PLASMA IMPACT</b> G.P. Glazunov, M.N. Bondarenko, <u>A.L. Konotopskiy</u> , A.P. Patokin, E.D. Volkov

## Wednesday 24<sup>th</sup> September

Poster №	Abstract. №	Title
27	6-13	<b>REMOVAL OF WATER VAPOUR FROM THE VACUUM CHAMBER OF THE U-3M PLASMA DEVICE</b> V.Y. Chernyshenko, V.K. Pashnev, S.I. Solodovchenko, A.F. Stan', S.A. Tsybenko
28	8-24	<b>TRANSITION GAS DISCHARGE AND GAS-DYNAMIC PROCESSES AT START OF THE SELFHEATED HOLLOW CATHODES</b> S.A. Lobov, A.V. Loyan, S.Y. Nesterenko, <u>A.I. Oranskiy</u>
29	8-38	<b>EFFICIENCY OF ENERGY TRANSFORMATION OF A HIGH-CURRENT PULSE DISCHARGE INTO EXTREME ULTRAVIOLET RADIATION</b> A.F.Tseluyko, V.T.Lazuryk, <u>D.V.Riabchikov</u> , V.I.Maslov, N.A.Azarenkov, I.N.Sereda, D.V.Zinov'ev, N.N.Yunakov, A.A.Makienko
30	8-39	<b>STABILIZATION CONDITIONS OF A DOUBLE LAYER ON THE BOUNDARY OF DISCHARGE AND THERMOIONIC PLASMA</b> <u>A.F.Tseluyko</u> , D.V.Zinov'ev, N.N.Yunakov
31	8-40	<b>THE INVESTIGATION OF THE OPTICAL SPECTRA IN PROCESS OF MAGNETRON DEPOSITION</b> A.V. Demchishin, <u>A.N. Evsyukov</u> , A.A. Goncharov , E.G. Kostin
32	8-41	<b>ABOUT NONREALIZATION LINES OF TUNGSTEN UP TO THE BASIC CONDITION IN NONIDEAL PLASMA OF PULSE DISCHARGE IN WATER</b> O.A. Fedorovich
33	8-42	<b>TECHNOLOGICAL TRIALS OF THE PLASMOCHEMICAL REACTOR WITH THE CLOSED DRIFT ELECTRON</b> <u>O.A. Fedorovich</u> , M.P. Kruglenko, B.P. Polozov
34	8-43	<b>ON A POSSIBILITY OF CREATION OF POSITIVE SPACE CHARGE CLOUD IN A SYSTEM WITH MAGNETIC ISOLATION OF ELECTRONS</b> A. Goncharov, A. Dobrovol'skii, S. Dunets, A. Evsyukov, I. Protsenko
35	8-44	<b>PLASMA – AIDED SURFACE TECHNOLOGY FOR MODIFICATION OF MATERIALS REFERRED TO FIRE PROTECTION</b> P. Dineff , <u>D. Gospodinova</u> , L. Kostova , T. Vladkova , E. Chen
36	8-45	<b>MODERN METHODS OF Ta<sub>2</sub>O<sub>5</sub> COATINGS DEPOSITION FOR BIOMEDICAL APPLICATIONS</b> <u>N. Donkov</u> , E. Mateev, A. Zykova , V. Safonov , V. Luk'yanchenko
37	8-46	<b>INFLUENCE OF MULTIPOLAR MAGNETIC FIELD GEOMETRY IN ECR PLANAR PLASMA SOURCE ON PLASMA PARAMETERS</b> V.D. Fedorchenko, V.V. Chebotarev, I.E. Garkusha, <u>A.V. Medvedev</u> , V.I. Tereshin, B.A. Shevchuk
38	8-47	<b>THE DYNAMIC PLASMA-LIQUID SYSTEM WITH ELECTRICAL DISCHARGE IN GAS CHANNEL SUBMERGED TO MICROPOROUS LIQUID</b> <u>S. Olszewski</u> , I. Prysiashnevych, L. Solomenko, V. Chernyak
39	8-48	<b>POLYMER POWDER ADHESION TO METALLIC SURFACE IMPROVEMENT WITH PLASMA</b> J. Hladík, J. Píchal, P. Špatenka
40	8-49	<b>THE CORROSION PROPERTIES OF MULTILAYER COATINGS DEPOSITED ON STAINLESS STEEL AND Ti4Al6V SUBSTRATES</b> A. Zykova, V. Safonov, J. Walkowich, <u>R. Rogowska</u> , S. Yakovin
41	8-50	<b>ON THE PROPERTIES OF A NONIDEAL PLASMA OF ELECTRICAL PULSE DISCHARGES IN WATER</b> <u>P.D. Starchyk</u> , P.V. Porytskyy

## Wednesday 24<sup>th</sup> September

Poster №	Abstract. №	Title
42	8-51	<b>THE INFLUENCE OF TECHNOLOGICAL PROCESS PARAMETERS ON SURFACE PROPERTIES OF MULTILAYER COATINGS</b> <u>A. Zykova</u> , V. Safonov, J. Walkowich, R. Rogowska, S. Yakovin
43	8-52	<b>VACUUM ARC PLASMA SOURCE WITH STEERED CATHODE SPOT</b> <u>I.I. Aksenov</u> , D.S. Aksyonov, Yu.A. Zadneprovsky
44	8-53	<b>HYBRID COMPUTER SIMULATIONS IN PLASMA PHYSICS: MOVEMENT OF MICRON-SIZED PARTICULATES IN THE PLASMA SHEATH</b> Petr Bartoš, Petr Jelínek, Josef Blažek, Petr Špatenka
45	8-54	<b>COMBINED PARTICLE AND FLUID MODELLING OF A DC AND RF DISCHARGE IN ARGON PLASMA</b> Petr Jelínek, Petr Virostko, Zdeněk Hubička, Petr Bartoš
46	9-1	<b>EMISSION SPECTROSCOPY OF TRANSVERSAL ATMOSPHERIC PRESSURE DISCHARGES</b> <u>I. Prysiazhnevych</u> , V. Chernyak, S. Olszewski, V. Yukhymenko, T. Lisitchenko
47	9-4	<b>ACCURACY INCREASING OF LOW TEMPERATURE NONE-EQUILIBRIUM PLASMA PARAMETERS DETERMINING BY A LENGMURE PROBE</b> <u>S.A. Oghienko</u> , Y.A. Setracova
48	9-10	<b>MEASUREMENT OF EDGE PLASMA PARAMETERS USING MOVABLE LANGMUIR PROBE ARRAY IN IR-T1 TOKAMAK</b> <u>R. Shariatzadeh</u> , M. Ghoranneviss, M. Emami
49	9-11	<b>APPLICATION OF MAGNETIC DIAGNOSTICS FOR DETERMINATION OF BASIC ENERGY CHARACTERISTICS OF PLASMA</b> V.K. Pashnev
50	9-12	<b>MEASURING - CONTROLLING COMPLEX FOR INVESTIGATING THE MAGNETIC SURFACES OF TORSATRON “URAGAN-2M”</b> S.P. Gubarev, E.B. Ermakov, M.I. Zolototrubova, G.G. Lesnyakov, F.I. Ozherel'ev, S.M. Maznichenko, G.P. Opaleva, V.S. Taran, V.I. Tereshin
51	9-13	<b>DATA ACQUISITION SYSTEM FOR “URAGAN - 2M”</b> S.P. Gubarev, E.B. Ermakov, M.I. Zolototrubova, G.P. Opaleva V.S. Taran, V.I. Tereshin
52	9-14	<b>ANALYSIS OF SMALL-SCALE OSCILLATIONS OF X-RAY RADIATION INTENSITY FROM PLASMA ON THE T-10 TOKAMAK</b> <u>E.V. Popova</u> , P.V. Savrukhin, M.M. Sokolov, D.V. Sarychev
53	9-15	<b>IS IT POSSIBLE TO AVOID APPEARANCE OF BLISTERS ON SURFACE OF IN-VESSEL MIRRORS USED FOR PLASMA DIAGNOSTICS?</b> D.V. Orlinski, O.F. Bardamid, <u>V.S. Voitsenya</u>
54	9-16	<b>ION-BOMBARDMENT MODIFICATION OF THE SURFACE OF MIRRORS FABRICATED OF ZRTICUNIBE AMORPHOUS ALLOYS</b> V.S. Voitsenya, A.S. Bakai, A.F. Bardamid, A.I. Belyaeva, V.N. Bondarenko, A.A. Galuza, V.G. Konovalov, K.V. Kovtun, D.I. Naidenkova, V.I. Ryzhkov, A.F. Shtan', K.A. Slatin, S.I. Solodovchenko, O.V. Trembach, A.A. Vasil'ev
55	PD-1	<b>LOW VACUUM DISCHARGE ELECTRON GUNS ON THE BASIS OF A HIGH VOLTAGE GLOW DISCHARGE</b> V.A. Tutyk
56	8-5	<b>SUBSTRATE TREATED BY ACTIVE SPECIES FLUX FROM Ar ATMOSPHERIC PRESSURE BARRIER DISCHARGE</b> <u>V.V. Tsiolko</u> , S.S. Pogulay, O.V. Yaroshchuk, R.M. Kravchuk, A.I. Shchedrin, A.G. Kalyuzhnaya, A.I. Kuzmichev



## Thursday 25<sup>th</sup> September

### 9.30-11.15 SESSION VII (Hall A)

Chaired by M.Sadowski and V.Vdovin

- 9.30 I-01 **PROGRESS AND PHYSICS OF THE WENDELSTEIN 7-X PROJECT**  
Thomas Klinger on behalf of the W7-X team
- 10.05 I-15 **THE LITHIUM STELLARATOR EXPERIMENTS: TJ-II AS A BENCHMARK**  
F.L. Tabarés and the TJ-II Team
- 10.40 I-16 **EXPERIMENTS AT THE T-11M DEVICE IN SUBSTANTIATION OF THE TOKAMAK WITH LITHIUM LOOP CYCLE**  
E.A. Azizov, A.G. Alekseyev, A.V.Vertkov, Ya.V. Gorbunov, V.A. Evtikhin, V.B. Lazarev, I.E. Ljublinski, S.V.Mirnov, S.M. Sotnikov, R.R. Khairutdinov

### 11.15-11.40 Coffee break

### 11.40-13.55 SESSION VIII (Hall A)

Chaired by F. Tabares and V.Voitsenya

- 11.40 I-14 **RECENT ATTAINMENTS OF RESEARCH ON PLASMA PHYSICS AND TECHNOLOGY AT IPJ, POLAND**  
M.J. Sadowski
- 12.15 8-1 **EMBODIMENT OF SURFACE-PLASMA METALLURGY BY COMPRESSION PLASMA FLOWS ACTION ON METALS**  
V.M. Astashynski, N.N. Cherenda, N.T. Kvasov, V.V. Uglov
- 12.35 4-4 **THE PROBLEM OF ELECTRIC ARC PLASMA SELF-ORGANIZATION**  
V.A. Zhovtyansky, Yu. I. Lelyukh and Ya. V. Tkachenko
- 12.55 8-2 **PLASMA OF ELECTRIC ARC BETWEEN ELECTRODES FROM COMPOSITION MATERIALS**  
I.L. Babich, V.F. Boretskij, A.N. Veklich
- 13.15 8-4 **SMALL OZONE STERILIZER WITH DOUBLE DISCHARGE –TYPE OZONIZER**  
V.S. Taran, V.V. Krasnyj, A.V. Klosovskij, V.I. Tereshin
- 13.35 8-7 **CONVERSION OF ETHANOL IN DYNAMIC PLASMA-LIQUID SYSTEM**  
V.V. Yukhymenko, M.O. Verovchuk, S. Olshevskij, V.Ya. Chernyak, V.A. Zrazhevskij, V.P. Demchina, V.S. Kudryavzev, V.V. Naumov

### 14.00-15.00 Lunch

### EXCURSION

## Friday 26<sup>th</sup> September

### 9.30-11.20 SESSION IX (Hall A)

Chaired by T.Klinger and A.Krasilnikov

- 9.30 I-17 **THE STRAIGHT FIELD CONCEPT AND APPLICATIONS**  
O. Ågren, V.E. Moiseenko, A. Hagnestål
- 10.05 I-18 **AXIALLY SYMMETRIC MAGNETIC MIRROR TRAPS.  
RECENT PROGRESS IN PLASMA CONFINEMENT AND HEATING**  
A.V.Burdakov, A.A.Ivanov, E.P.Kruglyakov
- 10.40 1-6 **STEADY-STATE CONFINEMENT OF ANISOTROPIC HIGH- $\beta$  PLASMA  
IN GDT-U EXPERIMENT**  
A.A. Ivanov
- 11.00 1-7 **PROSPECTS OF GOL-3 MULTIPLE MIRROR TRAP**  
A. Burdakoy, A. Arzhannikov, V. Astrelin, V. Batkin, V. Burmasov,  
G. Derevyankin, V. Ivanenko, I. Ivanov, M. Ivantsivskiy, I. Kandaurov,  
V. Konyukhov, K. Kuklin, S. Kuznetsov, A. Makarov, M. Makarov, K. Mekler,  
S. Polosatkin, S. Popov, V. Postupaev, A. Rovenskikh, A. Shoshin, S. Sinitsky,  
V. Stepanov, Yu. Sulyaev, Yu. Trunev, L. Vyacheslavov, Ed. Zubairov

### 11.20-11.40 Coffee break

### 11.40-13.55 SESSION X (Hall A)

Chaired by O. Agren and V. Astashynski

- 11.40 3-6 **HELIUM-3 - BASED FUSION PLASMA**  
S.V. Ryzhkov
- 12.00 6-4 **ION ENERGY DISTRIBUTIONS IN RF SHEATHS WITH DUST PARTICLES**  
O.Yu. Kravchenko, Yu.A. Yastrub, G.I. Levada, T.Y.Lisitchenko
- 12.20 6-1 **STUDY OF DEUTERIUM PLASMA INTERACTION WITH TUNGSTEN  
TARGET WITHIN RPI-IBIS FACILITY**  
E. Skladnik-Sadowska, K. Malinowski, M.J. Sadowski, K. Czaus, M. Kubkowska,  
M. Ladygina and B. Sartowska
- 12.40 6-2 **COMPARATIVE MHD ANALYSIS OF IPD PLASMA ACCELERATOR  
WORK WITH DIFFERENT ELECTRODE POLARIZATION**  
M. Rabiński, K.Zdunek
- 13.00 6-3 **PROPERTIES ON THE COMPRESSIBLE PLASMA STREAMS  
IN THE PRESENCE OF A LONGITUDINAL MAGNETIC FIELD**  
A.N. Kozlov
- 13.20 8-3 **PLASMA-ASSISTED GROWTH OF CARBON NANOFIBERS**  
I. Denysenko, K. Ostrikov, N. A. Azarenkov
- 13.40 1-11 **A METHOD OF FORMING FIELD REVERSED CONFIGURATION**  
A. Mozgovoy

### 14.00-15.00 Lunch

### 16.45-17.00 Coffee break

## Friday 26<sup>th</sup> September

### 17.00-19.00 SESSION XI (Hall A)

Chaired by N. Azarenkov and A. Yegorov

- 17.00 7-1 **NEUTRON SOURCE BASED ON THERMONUCLEAR FLASH AT PLASMA IONS CUMULATION BY A CONVERGING RING TW-LASER PULSE**  
V.A. Balakirev, I.N. Onishchenko, A.I. Povrozin, A.P. Tolstoluzhsky A.M. Yegorov
- 17.20 7-6 **DYNAMICS OF THE MODULATED ELECTRON BEAM IN THE INHOMOGENEOUS PLASMA BARRIER: KINETIC EFFECTS**  
I.O. Anisimov, M.J. Soloviova
- 17.40 7-3 **EFFECT OF STEADY AZIMUTHAL MAGNETIC FIELD ON THE DISPERSION PROPERTIES OF HF AZIMUTHAL SURFACE WAVES**  
I.O. Girka, O.I. Girka, V.O. Girka, I.V. Pavlenko
- 18.00 7-4 **HIGH-CURRENT ION INDUCTION LINAC FOR HEAVY ION INERTIAL FUSION: 2.5-DIMENSIONAL NUMERICAL SIMULATION**  
O.V. Bogdan, V.I. Karas, E.A. Kornilov and O.V. Manuilenko
- 18.20 7-5 **STRONG FIELDS. SOME FEATURES OF DYNAMICS OF PARTICLES AND WAVES**  
V.A. Buts
- 18.40 7-2 **VORTICAL ELECTRON DYNAMICS IN PLASMA, OBSERVED AT LASER INTERACTION WITH FOIL**  
A.M. Yegorov, V.I. Maslov, I.N. Onishchenko

### 19.30- 22.30 CONFERENCE DINNER

## Saturday 27<sup>th</sup> September

### 9.00-11.30 SESSION XII (Hall A)

Chaired by I. Anisimov and I. Onishchenko

- 9.30 5-1 **BLACK-BOX APPROACH TO SPACE WEATHER FORECASTING AND IDENTIFICATION OF GEOEFFECTIVE PARAMETERS**  
Oleg Cheremnykh, Aleksei Parnowski, Vitaly Yatsenko
- 9.50 2-2 **TIME DEPENDENT SOLUTIONS OF COLLISIONAL ELECTRON KINETIC EQUATION**  
I. F. Potapenko, T. K. Soboleva, S. I. Krashenninikov
- 10.10 2-1 **FAST WAVE MODE CONVERSION EFFICIENCY IN PLASMAS WITH LARGE CONCENTRATION OF MINORITY IONS**  
I.V. Pavlenko, Ye.O. Kazakov, B. Weyssow, I.O. Girka
- 10.30 4-1 **ANISOTROPIC INSTABILITY IN NON-MAXWELLIAN PLASMAS**  
G. Murtaza, S. Zaheer
- 10.50 4-3 **COMPLEX PLASMA INTERFACES**  
V.V. Yaroshenko, M. H. Thoma, H. M. Thomas, G.E. Morfill

11.15

CLOSING

*DEPARTURE*

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