

PROGRAM
of the VIII International Workshop on Stellarators
Kharkov, 27-31 May 1991

Monday, May 27

- 9.30 - 9.40 **Opening Remarks.**
 O. S. Pavlichenko
 V. I. Tereshin
- 9.40 - 11.00 **Session I-0. Progress reports**
 Chairman - O. S. Pavlichenko.
- I-0-1. **Overview of U-3M Experiment** 1
 E. D. Volkov and U-3M Group (KhPTI) (40 min.)
- I-0-2. **Overview of recent results from Advanced Toroidal Facility** 7
 J. F. Lyon and ATF Team (ORNL). (40 min.)
- 11.00 - 11.20 **Coffee**
- 11.20 - 13.00 **Session II-0. Transport.**
 Chairman - K. N. Stepanov.
- II-0-1. **Observation of Damping of Toroidal Rotation due to Neo-**
 classical Parallel Viscosity in Heliotron/Torsatron CHS. 17
 K. Ida, H. Yamada, H. Iguchi, K. Itoh and CHS Group (NIFS) (20 min.)
- II-0-2. **Variation of the Neoclassical Transport Level in the**
 Uragan-2M Torsatron.
 C. D. Beidler, J. Kiblinger, F. Rau, H. Wobig (IPP),
 A. A. Shishkin (KhPTI) (20 min.) 21
- II-0-3. **Ion heat Conductivity, Radial Electric Fields and**
 CX-Losses in the WVII-AS Stellarator.
 H. Maaßberg, J. Junker, M. Kick, W. Olendorf, S. Zopf, W7-AS Team,
 NBI Team (IPP), V. I. Afanasjev, A. B. Izvozchikov (LPTI) (20 min.) 25
- II-0-4. **Ion confinement in the Advanced Toroidal Facility.** 29
 R. J. Colchin, M. R. Wade, R. H. Fowler, R. C. Isler, J. F. Lyon,
 J. A. Rome, and C. E. Thomas (ORNL). (20 min.)
- II-0-5. **Configurational effects on the confinement in W7-AS.** 35
 H. Renner, U. Gasparino, A. Weller and W7 AS-Team, NBI-Team (IPP),
 ECRH-Group (Stuttgart Univ.). (20 min.)
- 13-00 -14.30 **Lunch**

14.30 - 16.00 Session III-P. Transport Effects
Chairman - A. A. Shishkin.

III-P-1. Neoclassical Current and Rotation in a Helical System. N. Nakajima and M. Okamoto (NIFS)	39
III-P-2. Calculation of the Ambipolar Electrical Field for Helias with emphasis on Wendelstein 7X C. D. Beidler (IPP)	43
III-P-3. Neoclassical Transport Calculations using DKES Code for W7-AS. H. Maassberg, W7-AS Team and NBI Team (IPP)	45
III-P-4. Monte Carlo transport analysis in torsatron/heliotron systems. M. S. Smirnova (KhPTI).	49
III-P-5. Particle and energy balance in Uragan-3 torsatron. N. T. Besedin, S. V. Kasilov, I. M. Pankrator, Pyatak A. I., Stepanov K. N. (KhPTI)	53
III-P-6. Heat transport in current-free, plasma of the L-2 stellarator. E. D. Andryukhina, K. S. Dyabilin, O. I. Fedyanin (IGP)	57
III-P-7. Monte Carlo studies of transport coefficients for Uragan-2M device. Yu. A. Volkov (IAM), S. G. Shasharina (IGP), N. T. Besedin, I. M. Pankrator, A. A. Shishkin (KhPTI).	61
III-P-8. Spherical harmonics method for calculating neoclassical transport coefficients. Yu. A. Volkov (IAM)	65
III-P-9. Neoclassical Studies in Heliac TJ-II. A. Rodriguez-Yunta (CIEMAT).	69
III-P-10. Peaked Density Profile and its Correlation with Toroidal Rotation in the Heliotron/Torsatron CHS. H. Iguchi, K. Ida, H. Yamada, S. Okamura, K. Matsuoka and CHS Group (NIFS).	75
III-P-11. First results from ATF Heavy Ion Beam Probe. K. A. Connor, S. C. Aceto, J. G. Schwelberger, J. J. Zielinski (RPI), A. Carnevali (RMWC), J. C. Glowienka (ORNL), H. Okasu (PPLKU)	79
III-P-12. Probability of particle trapping and detrapping in torsatrons. I. N. Sidorenko (KhPTI)	85

16.00 - 17.30 Session IV-P. Magnetic Configurations.

Configurational Effects

Chairman - D. L. Grekov.

- IV-P-1. Detachable joint and current feed influence on the Uragan-4 magnetic configuration. 89
N. T. Besedin, G. G. Lesnyakov, I. M. Pankrator (KhPTI).
- IV-P-2. Suppression of magnetic islands in torsatrons. 93
A. V. Zolotukhin, A. A. Shishkin (KhPTI).
- IV-P-3. Vacuum magnetic configuration control in the torsatron Uragan-2M by poloidal and toroidal magnetic fields. 97
V. E. Bykov, A. V. Khodyachikh, Yu. K. Kuznetsov, O. S. Pavlichenko, V. G. Peletninskaya, A. A. Shishkin (KhPTI).
- IV-P-4. $l=3$ torsatron magnetic configuration with quadrupole field. 99
G. G. Lesnyakov, V. I. Fetrenko (KhPTI)
- IV-P-5. Perturbation Field Experiments in CHS. 103
S. Okamura, L. Peranich, K. Matsuoka, H. Iguchi, K. Ida, H. Yamada, K. Nishimura and CHS Group (NIFS).
- IV-P-6. Effect of Magnetic Islands Produced by External Perturbations on Plasma Confinement in TU-Heliac. 107
H. Watanabe, S. Kitajima, K. Takayama and T. Zama (TU)
- IV-P-7. Confinement Improvement of NBI plasmas by magnetic configuration control. 111
F. Sano, S. Sudo, H. Zushi, K. Kondo, T. Mizuuchi, H. Okada, K. Hanatani, M. Nakasuga, S. Besshou, Y. Nakamura, M. Wakatani, T. Obiki (PPLKU), K. Muraoka, K. Uchino, K. Matsuo, A. Komori (Kyushu U), M. Sato (NIFS)
- IV-P-8. Configuration control and modulation experiments using long-pulse ECH discharges in the ATF torsatron. 115
W. R. Wing, L. R. Baylor, T. S. Bigelow, R. J. Colchin et al. (ORNL)
- IV-P-9. Creation of average magnetic well in closed magnetic traps by a local deformation of circular magnetic surfaces. 123
V. M. Glagolev, A. E. Lenjova (IAE).
- IV-P-10. Magnetic field perturbation's effect on particle motion in torsatrons/heliotrons. 127
M. S. Smirnova, A. A. Shishkin (KhPTI)
- IV-P-11. Recycling in W7-AS and modeling on the basis of Degas-code. 131
F. Sardei, H. Ringler, A. Dodhy, P. Grigull, G. Kühner, F. P. Penningsfeld W7-AS Team, NBI-Team (IPP), ECRH Group (Stuttgart Univ.).

17.30 - 19.00 Discussion

Tuesday, May 28

9.30 - 11.00 Session V-O. Progress reports.

Chairman - G. Grieger.

- V-O-1 Progress on the stellarator Wendelstein W VII AS.
H. Renner, H. Maassberg, H. Ringler, F. Sardei and the W7-AS Team,
NBI-Team (IPP), ECRH-Group (Stuttgart Univ.) (40 min.) 135
- V-O-2. Recent results of Heliotron E Experiment.
T. Obiki and Heliotron E group. (40 min.) 177

Coffee 11.00 - 11.20

11.20 - 13.00 Session VI-O. Fluctuations.

Chairman - O. I. Fedyanin

- VI-O-1. Magnetic fluctuation measurements in the Heliotron-E
Device. H. Zushi (PPLKU) (20 min.) 185
- VI-O-2. Fluctuations and transport in low-collisionality plasmas
in the ATF Torsatron.
J. H. Harris, M. Murakami, B. A. Carreras et al (ORNL). Presented
by J. F. Lyon. (20 min.) 191
- VI-O-3. Plasma potential and electric field investigations in ATF.
R. C. Isler, R. J. Colchin, T. Uckan (ORNL), S. C. Aceto, J. G. Schwelberger,
J. J. Zelinski (RPI), H. Okada (PPLKU). (20 min.) 197
- VI-O-4. Edge Plasma Fluctuations in the ATF Torsatron.
C. Hidalgo (CIEMAT), J. H. Harris, T. Uckan, J. D. Bell, B. A. Carreras,
J. L. Dunlap, G. R. Dyer (ORNL), Ch. P. Ritz, A. J. Wootton, M. A. Meier,
T. L. Rhodes (Univ. Texas). (20 min.) 203

13-00 -14.30 Lunch

14.30 - 16.00 Session VII-P. Plasma Production and Heating

{OH, RF and NBI}.

Chairman - V. V. Chechkin.

- VII-P-1. Alfvén heating in toroidal plasmas by using three half-
turn loop antenna. V. E. Moiseenko (KhPTI) 207
- VII-P-2. Excitation of global Alfvén modes in a stellarator.
A. G. Kirov, L. F. Ruchko, D. A. Voytenko, A. V. Sukachev (SPTI). 211
- VII-P-3. Study of propagation and damping of FMS waves and ICR
heating on L-2 stellarator.
S. E. Grebenshchikov, A. I. Meshcheryakov, I. S. Sbitnikova,
V. N. Sukhodol'skij (IGP). 215

VII-P-4. RF system for plasma production and heating in "Uragan-2M" device.	
<i>A.V. Longinov, D.V. Berezov, E.I. Kolosenko, E.D. Kramskoj, V.A. Lukinov, G.Ya. Nizhnik, A.A. Chmyga (KhPTI).</i>	219
VII-P-5. Electron plasma component heating in "Uragan-2M" torsatron with FMSW in $\omega > \omega_{ci}$ range.	
<i>V.E. Dyakov, A.V. Longinov, S.S. Pavlov (KhPTI).</i>	223
VII-P-6. Propagation and absorption studies of ion Bernstein waves in the torsatron "Uragan-2M" by ray tracing technique.	
<i>V.E. Dyakov, A.V. Longinov (KhPTI).</i>	227
VII-P-7. ICR scenarios of the ion component heating in "Uragan-2M" torsatron plasma.	
<i>A.V. Longinov, S.S. Pavlov (KhPTI).</i>	231
VII-P-8. ICRF Heating Experiments in CHS.	
<i>K. Nishimura, T. Shoji, R. Kumazava, T. Mutoh, T. Watari and CHS Group (NIFS).</i>	235
VII-P-9. Plasma RF-production experiments using the antenna integrated to the U-3M torsatron helical windings.	
<i>E.D. Volkov, A.I. Lysojvan, N.I. Nazarov, V.V. Plyusnin, T. Yu. Ranyuk, O.M. Shvets (KhPTI).</i>	239
VII-P-10. ICRF-method for plasmas production in large stellarators.	
<i>A. I. Lysojvan, V. E. Moiseenko, O. M. Shvets, K. N. Stepanov (KhPTI).</i>	243
VII-P-11. Plasma production in a stellarator by using alternating toroidal current.	
<i>V. E. Moiseenko (KhPTI).</i>	247
VII-P-12. NBI experiments in the "Uragan-3" Torsatron.	
<i>V. I. Tereshin, S. I. Karpukhin, A. V. Klimenko, B. A. Shevchuk and "U-3M" Team (KhPTI).</i>	251
VII-P-13. Efficiency of neutral beam injection in the "Uragan-2M" and "Uragan-3M" torsatrons.	
<i>V. Ya. Goloborod'ko, V. P. Nagornyi, V. A. Yavorskij (INR, Kiev), S. I. Karpukhin, A. V. Klimenko, V. I. Tereshin, B. A. Shevchuk (KhPTI).</i>	255
VII-P-14. NBI Optimization Studies for TJ-II Helical Axis Stellarator.	
<i>J. Guasp, M. Liniers (CIEMAT)</i>	259
VII-P-15. Peculiarity of Ohmic heating due to magnetic islands in Uragan-2 stellarator.	
<i>N. F. Perepelkin, A. V. Arsen'ev, E. D. Volkov, V. G. Konovalov, A. E. Kulaga, A. N. Shapoval (KhPTI)</i>	263
VII-P-16. Dynamics of periphery plasma in Uragan-3M after termination of RF-heating pulse.	
<i>V. V. Chechkin, L. I. Grigor'eva, V. V. Konovalov, N. I. Nazarov, V. V. Plyusnin, A. I. Skibenko, V. S. Vojtsenya, E. D. Volkov (KhPTI).</i>	269
VII-P-17. ICRF heating system on Large Helical Device.	
<i>R. Kumazava, T. Watari, T. Mutoh, F. Shinbo, K. Ohkubo, S. Kubo, T. Kuroda (NIFS).</i>	275

16-00 - 17.30 Session VIII-P. Equilibrium. Stability.

Chairman- Yu. K. Kuznetsov.

VIII-P-1. A criterion of ballooning flute mode stability in stellarator. O. K. Cheremnykh (INR).	279
VIII-P-2. Internal kink mode $m=1$ in stellarator. O. K. Cheremnykh and A. V. Podnebesnyj (INR).	283
VIII-P-3. Dispersion relations for Suydam problem in stellarator. O. K. Cheremnykh and S. M. Revenchuk (INR).	287
VIII-P-4. Stability Studies for the Flexible Helic TJ-II. C. Alejaldre, A. L. Fraguas, L. Garcia, A. Salas, A. Varias (CIEMAT) B. Carreras, N. Dominguez, V. Linch (ORNL).	291
VIII-P-5. Quasisymmetrical stellarators in paraxial approximation. M. Yu. Isayev (IAE).	297
VIII-P-6. MHD equilibrium for Uragan-2M torsatron. D. L. Grekov, V. E. D'yakov (KhPTI), S. P. Hirshman (ORNL).	301
VIII-P-7. Study of plasma equilibrium currents in the Uragan-2M torsatron. V. N. Kalyuzhnyj, V. V. Nemov (KhPTI).	305
VIII-P-8. Plasma pressure anisotropy effect on ideal MHD-modes in stellarator type traps. P. Y. Demchenko, K. V. Sakhar (KhsU), A. Ya. Omel'chenko (KhPTI).	311
VIII-P-9. Plasma equilibria with large-scale islands (method of basic coordinates). D. Yu. Sychugov (MSU), S. V. Shchepetov (IGP).	313
VIII-P-10. Analytical calculations of plasma equilibrium in torsatron "Uragan-2M". Y. K. Kuznetsov, I. B. Pinos, V. I. Tyupa (KhPTI)	317
VIII-P-11. Dynamic of longitudinal current in the "Uragan-3" torsatron. Yu. V. Gutarev, V. K. Pashnev (KhPTI), V. D. Pustovitov (IAE).	321
VIII-P-12. A semianalytical approach to the Mercier criterion for some TJ-II configurations. A. Varias, A. L. Fraguas and C. Alejaldre (CIEMAT), N. Dominguez, B. Carreras and V. Linch (ORNL).	325

17.30 - 19.00

Discussion

Wednesday, May 29

9.30 - 11.00 Session IX-0. Progress reports.

Chairman - J.F. Lyon.

IX-O-1. Physics Studies for U-2M Torsatron.

*N.T. Besedin, V.E. Dyakov, D.L. Grekov, G.G. Lesnyakov,
I.M. Pankrator, O.S. Pavlichenko, A.A. Shishkin, I.N. Sidorenko,
M.S. Smirnova, A.V. Zolotukhin (KhPTI), C.D. Beidler,
J. Kisslinger, F. Rau, H. Wobig (IPP), B.A. Carreras, N. Dominguez,
V. Linch (ORNL).* (40 min.)

327

IX-O-2. Studies on Equilibrium, Stability and Transport for the TJ-I Helical Axis Device. Status of the Project.

A.P. Navarro

(40 min.)

339

Coffee 11.00 - 11.20

11.20 - 13.00 Session X-0. Edge plasma.

Chairman - H. Renner.

X-O-1. Impurities and radiation in the W7-AS stellarator after wall conditioning by carbonization and boronization.

*R. Brakel, R. Burhenn, A. Elsner, P. Grigull, H. Hacker, F. Sardei,
A. Weller, W7-AS Team, NBI Team (IPP), K. Kondo (PPLKU),
ECRH Group (Stuttgart Univ.).* (20 min.)

349

X-O-2. Characteristics of plasma edge in the Heliotron-E device.

T. Mizuuchi, H. Matsuura and Heliotron-E Group. (20 min.)

365

X-O-3. Peripheral plasma characteristics near LCMS in Uragan-3M.

*N.T. Besedin, V.V. Chechkin, I.P. Fomin, L.I. Grigor'eva, N.I. Nazarov,
I.M. Pankrator, V.V. Plyusnin, T. Yu. Ranyuk, A.I. Skibenko,
S.I. Solodovchenko, V.S. Vojtsenya, E.D. Volkov (KhPTI).*

369

X-O-4. RF heating effects on diverted plasma flows in Uragan-3M.

*V.V. Chechkin, I.P. Fomin, L.I. Grigor'eva, N.I. Nazarov,
V.V. Plyusnin, T. Yu. Ranyuk, A.I. Skibenko, S.I. Solodovchenko,
V.S. Vojtsenya, E.D. Volkov (KhPTI).*

375

Papers X-O-3 and X-O-4 are combined, total time-30 min.

13.00 -14.30 Lunch

14.30 - 16.00 Session XI-P. ECR Heating. Diagnostics.

Chairman- V.S. Voitsenya.

XI-P-1. Profile measurements and transport analysis of ECH plasmas in Heliotron E.

*S. Sudo, H. Zushi, K. Kondo, F. Sano, T. Mizuuchi, S. Besshou,
H. Okada, M. Wakatani and T. Obiki (PPLKU).*

381

XI-P-2. Behavior of diamagnetism and toroidal current in Heliotron E plasmas. <i>S. Besshou and Heliotron-E Group (PPLKU).</i>	385
XI-P-3. Electron temperature measurements by Thomson scattering on the current-free ECRH plasmas in the L-2 stellarator. <i>M.F. Larionova, Yu. A. Orlov (IGP)</i>	389
XI-P-4. Ion Temperature in L-2 stellarator with RF-heating from Doppler broadening. <i>M.P. Donskaya, G.S. Voronov (IGP).</i>	393
XI-P-5. Development of the transmission system for a half megawatt 106 GHz gyrotron. <i>M. Sato, H. Zushi, M. Iima, S. Kobayashi, K. Sakamoto, K. Nagasaki, T. Senju (PPLKU)</i>	397
XI-P-6. Mode and power measurement of the HE ₁₁ transmission line. <i>M. Sato, H. Zushi, M. Iima, S. Kobayashi, K. Sakamoto, K. Nagasaki, K. Hosokawa, S. Kubo (PPLKU)</i>	401
XI-P-7. Ions behavior during the ECRH in the stellarator L-2. <i>I. S. Sbitnikova, V. N. Sukhodol'skiy (IGP).</i>	405
XI-P-8. Neoclassical Energy Balance Simulation for ECR Plasma in L-2 stellarator. <i>S. E. Grebenshchikov, I. S. Danilkin (IGP) and A. B. Mineev (Efremov. Inst.).</i>	409
XI-P-9. Multichannel far-infrared interferometers for electron density measurements for the Uragan-2M stellarator. <i>V. L. Berezhtnyj, V. I. Kononenko, O. S. Pavlichenko (KhPTI), V. A. Epishin, V. A. Maslov, V. A. Svich, A. N. Topkov (KhSU).</i>	413
XI-P-10. Heavy ion beam probing optimization for stellarators. <i>L. I. Krupnik, I. S. Nedzelskiy, N. V. Samokhvalov (KhPTI), A. V. Melnikov (IAE), N. K. Kharchev (IGP).</i>	417
XI-P-11. On the problem of magnetic diagnostics of a stellarator plasma. <i>Yu. K. Kuznetsov (KhPTI), S. V. Shchepetov (IGP).</i>	421
XI-P-12. The new method of the magnetic diagnostic for the stationary operating systems. <i>E. D. Andryukhina, K. S. Dyabilin, O. I. Fedyanin (IGP).</i>	425
XI-P-13. To the "stellarator diode method" in l=3 torsatron studying. <i>E. D. Volkov, V. M. Zalkind, G. G. Lesnyakov, F. I. Ozherel'ev, D. P. Pogozhev (KhPTI).</i>	429
XI-P-14. A theory of "a stellarator diode". <i>A. G. Dikij, V. M. Zalkind, G. G. Lesnyakov, O. S. Pavlichenko, A. V. Pashchenko, V. K. Pashnev, D. P. Pogozhev (KhPTI).</i>	433

16.00 - 17.30 Session XII-P. New devices. Reactors.

Chairman- E.D.Volkov.

- XII-P-1. Experimental device "Uragan-6" concept. 437
V. Z. Amelin, E. D. Volkov, A. V. Georgievskij, V. I. Koryavko,
K. S. Rubtsov, V. A. Rudakov, Yu. F. Sergeev (KhPTI).
- XII-P-2. Compact circular stellarator magnetic systems. 441
V. E. Bykov, E. D. Volkov, V. P. Vorobiova, A. V. Georgievskij,
Yu. K. Kuznetsov, S. A. Martynov, V. G. Peletninskaya, V. A. Rudakov,
Yu. F. Sergeev, N. A. Khadzhamuradov, A. V. Khodyachikh (KhPTI).
- XII-P-3. Uragan-4 Project. 447
V. E. Bykov, A. V. Georgievskij, A. V. Khodyachikh, Yu. K. Kuznetsov,
Yu. A. Litvinenko, O. S. Pavlichenko, V. G. Peletninskaya,
Yu. F. Sergeev, A. A. Shishkin, F. A. Tkhoryak (KhPTI).
- XII-P-4. Stellarator modular magnetic systems. 451
A. V. Georgievskij, V. A. Rudakov (KhPTI).
- XII-P-5. TJ-I Upgrade : a l=1 torsatron for stability studies. 455
Theoretical predictions and status of the project.
E. Ascasibar, J. Alonso, C. Alejaldre, F. Castejon, J. Guasp,
V. Krivenski, A. Lopez-Fraguas, R. Martin, A. Martinez, A. P. Navarro
M. A. Cchando, I. Pastor, A. Rodriguez-Yunta, J. Sanchez, F. Tabares,
and V. Tribados (CIEMAT).
- XII-P-6. Stellarator reactor optimization. 459
J. F. Lyon, S. L. Painter (ORNL).
- XII-P-7. D - ³He Reactor-Stellarator and the ash problem. 461
V. A. Rudakov (KhPTI).
- XII-P-8. Confinement improvement scenario by the LHD Divertor. 465
N. Oyabu (NIFS).

17.30 -19.00

Discussion

Thursday, May 10

9.30 - 11.00 Session XIII-O. Progress reports.

 Chairman - O.Motojima.

XIII-O-1. Status of Stellarator Research in the General Physics
Institute.

G.M.Batanov, S.E.Grebenshchikov, L.M.Kovrizhnykh,
O.I.Fedyanin (IGP). (40 min.)

469

XIII-O-2. Review of CHS Experiments.

K.Matsuoka and CHS Group. (40 min.)

471

Coffee 11.00 - 11.20

11.20 - 13.00 Tour on U-3M and U-2M site.

13.15 -19.30 Site seeing.

Friday, May 11.

9.30 - 11.00 Session XIV-0. Progress reports.

Chairman - A.P. Navarro.

XIV-0-1. Recent Status of Large Helical Device Project.

O. Motojima, M. Fujiwara, and LHD Design Group (NIFS). (40 min.)

481

XIV-0-2. Project of the L-2/4 stellarator.

S. E. Grebenshchikov, I. S. Danilkin, L. M. Kovrizhnykh, O. I. Fedyanin,
O. E. Khadin, V. A. Tsygankov, I. S. Shpigel, S. V. Shchepetov (IGP),
E. N. Bondarchuk, M. M. Golovanov, V. V. Ivanov, V. A. Karnaukh,
I. V. Kirpichev, B. A. Kitaev, V. S. Kuligin, V. V. Makarov, I. V. Markov,
S. I. Mashkovtsev, A. B. Mineev, A. V. Petrov (Efremov Inst.) (40 min)

483

Coffee 11.00 - 11.20

11.20 - 13.00 Session XV-0. Equilibrium.

Chairman - V. D. Shafranov.

XV-0-1. Free boundary plasma equilibrium in stellarator.

V. D. Pustovitor (IAE). (30 min.)

487

XV-0-2. Global internal MHD mode analysis of stellarators and
W7-X application.

C. Schwab (IPP). (20 min.)

491

XV-0-3. Free boundary plasma equilibrium in a small shear
stellarator.

A. B. Kuznetsov, S. V. Shchepetov (IGP), Yu. K. Kuznetsov (KhPTI),
D. Yu. Sychugov (MSU). (20 min.)

499

XV-0-4. Application of Microwave Reflectometry to Stability and
Turbulence Studies in Stellarators.

J. Sanches, B. Braffas, T. Estrada, E. de la Luna,
A. P. Navarro (CIEMAT), G. R. Hanson, J. H. Harris, J. D. Bell,
J. B. Wilgen (ORNL), H. J. Hartfuss (IPP) (20 min.)

503

13.00-14.30 Lunch

Chairman - T.Obiki.

- XVI-O-1. Coil systems for optimal flexibility in W7-K. 507
 P.Merkel (IPP). (20 min)
- XVI-O-2. Local Thermal Transport Analysis in the Low-Aspect-Ratio Heliotron/Torsatron CHS. 511
 H.Yamada, K.Ida, H.Iguchi, H.C.Howe, S.Kubo, Y.Ogawa, K.Hanatani, S.Okamura and CHS Group (NIFS). (20 min)
- XVI-O-3. Efficiency of electron-cyclotron microwave absorption in the L-2 stellarator. 515
 E. D. Andryukhina, K. S. Dyabilin, O. I. Fedyanin (IGP). (20 min)
- XVI-O-4. Collisionless alpha-particle confinement in modular stellarators. 519
 W.Lotz, P.Merkel, J.Nuhrenberg (IPP). (20 min)
- XVI-O-5. On the confinement of fast particles in compact stellarators. 525
 V. Ya. Goloborod'ko, V. P. Nagornyj, V. A. Yavorskiy (INR) (20 min)

Post Deadline Papers

- I Pellet Injection Experiments of ECH Plasmas in Heliotron E. 529
 S. Sudo, T. Baba, H. Zushi, K. Kondo, F. Sano, T. Mizuuchi, S. Besshou, H. Okada, M. Wakatani, and T. Obiki (Plasma Physics Laboratory, Kyoto University)
- II Neoclassical Transport in Stellarators - A comparison of conventional stellarator/torsatrons with the advanced stellarator Wendelstein 7X. 533
 C.D. Beidler (IPP)
- III Diagnostics Development for the Large Helical Device. 537
 H. Iguchi (Diagnostic Division and R&D Division, National Institute for Fusion Science, Nagoya)