

P A R T I I

Topic 4: Plasma Edge Physics

Poster-No.	Volume/Page
Title,	
Author(s)	
4-1 Edge measurements in the divertor region in high density discharges at JET, <i>Clement S., Erents S.K., Gottardi N., Harbour P.J., Jaekel H., Janeschitz G., De Kock L., Loarte A., Lowry C., Saibene G., Summers D., Tagle J.A., Vlases G.</i>	II-72
4-2 High power operation with a radiative divertor in JET, <i>Janeschitz G., Clement S., Gottardi N., Lesourd M., Lingertat J., Lowry C., Radford G., Saibene G., Stamp M., Summers D., Taroni A., Thomas P.R., Vlases G.</i>	II-72
4-3 Energy exhaust through neutrals in a tokamak divertor, <i>Watkins M.L., Rebut P.-H.</i>	II-73

XIX

Poster-No. Title, Author(s)	Volume/Page
4-4 Modelling of the density limit in JET beryllated limiter discharges, <i>Borras K., Campbell D., Clement S., Vlases G.</i>	II-735
4-5 Modelling of neutral and charged helium transport in scoop of a pump limiter, <i>Tokar M.Z., Reiter D.</i>	II-739
4-6 Marfe detection by radiation monitoring and control of density limit disruptions, <i>Steuer K.-H., Junker W., Röhr H., Büchl K., Engelhardt W., Gruber O., Kaufmann M., Mertens V., Neuhauser J., Stäbler A., Zohm H., ASDEX-, ASDEX-Upgrade Teams</i>	II-743
4-7 Modelling of the ASDEX-Upgrade scrape-off layer plasma, <i>Bosch H.-S., Neuhauser J., Bachmann P., Schneider R., Kaufmann M., Reiter D., Baelmans T., Braams B.</i>	II-747
4-8 Modeling the DIII-D plasma boundary with the LEDGE code, Porter G.D., Rensink M.E., Rognlien T.D., Jong R.A., Hill D.N.	II-751
4-9 2-D edge modelling: convergence and results for next step devices in the high recycling regime, <i>Pacher H.D., D'haeseleer W.D., Pacher G.W.</i>	II-755
4-10 Modelling of TEXTOR edge plasma in discharges with auxiliary heating, neon puffing, <i>Tokar M.Z., Samm U.</i>	II-759
4-12 A study of the SOL density profile behaviour in ASDEX, <i>McCormick K., Schweinzer J., Pietrzyk Z.A.</i>	II-763
4-13 Power flux widths in the ASDEX divertor, <i>Kyriakakis G., Kakoulidis E., Tsotsis N., McCormick K., Neuhauser J.</i>	II-767
4-14 Spatial distribution of carbon ions and ion temperature measurements in the plasma edge of TEXTOR using emission spectroscopy, <i>Telesca G., Claaßen H.A., Graffmann E., Van Oost G.</i>	II-771
4-15 Poloidal rotation in the limb of the TEXTOR plasma measured by the Doppler shift of a BII-line, <i>Conrads H., Euringer H., Rusbuldt D.</i>	II-775
4-16 The effect of radial electric field on fast ion losses in divertor tokamaks, <i>Chankin A.V., Summers D.D.R., McCracken G.M.</i>	II-779
4-17 Density, potential and temperature fluctuations in Wendelstein 7-AS, ASDEX, <i>Balbin R., Carlson A., Endler M., Giannone L., Hidalgo C., Niedermeyer H., Rudyj A., Theimer G., W7-AS Team, ASDEX Team</i>	II-783
4-18 Attempt to model the edge turbulence of a tokamak as a random superposition of eddies, <i>Endler M., Theimer G., Weinlich M., Carlson A., Giannone L., Niedermeyer H., Rudyj A., the ASDEX-Team</i>	II-787
4-19 Mechanisms inducing changes on the edge turbulence in the TJ-I tokamak, <i>Pedrosa M.A., Garcia-Cortes I., Balbin R., Hidalgo C., Ochando M.A., Liniers M.</i>	II-791
4-20 m=1 activity prior to the onset of sawtoothing on Tokoloshe tokamak, <i>Nothnagel G., Sherwell D., Roberts D.E., Fletcher J.D., De Villiers J.A.M., Walters P.E.</i>	II-795

XX

Poster-No. Title, Author(s)	Volume/Page
4-21 Role of edge plasma in a high β very low q tokamak regime, <i>Kiyama H., Kiyama S.</i>	II-799
4-22 Fluctuations and transport in a tokamak with high MHD activity, <i>Heller M.V.A.P., Castro R.M., Caldas I.L., da Silva R.P., Brasílio Z.A., TBR-I Team</i>	II-803
4-23 Kinetic instabilities in a plasma in E x B fields, <i>Shoucri M., Bertrand P., Ghizzo A., Knorr G.</i>	II-807
4-24 Coherent vortical structures in two-dimensional plasma turbulence, <i>Lynov J.P., Nielsen A.H., Pécseli H.L., Rasmussen J.J.</i>	II-811
4-25 Guided Alfvén beams in the Tortus tokamak, <i>Cross R.C., Miljak D.G.</i>	II-815
4-26 Measurement of sputtering yields at the JET beryllium and carbon x-point tiles, <i>Stamp M.F., Thomas P.R.</i>	II-819
4-27 Radial carbon flux profiles in the upper divertor in JET at high target load, <i>Jäckel H.J., Clement S., Lesourd M., Lingertat J., Maggi C.F., Matthews G.F., Summers D.D.R., Summers H.P.</i>	II-823
4-28 Chemical impurity production under boronized wall conditions in TEXTOR, <i>Philippss V., Vietzke E., Erdweg M.</i>	II-827
4-29 Divertor retention for recycling impurities, <i>Krieger K., Roth J., Fussmann G.</i>	II-831
4-30 Particle influx and impurity behaviour in the ASDEX-Upgrade tokamak, <i>Kallenbach A., Fuchs C., Fussmann G., Jenichen F., Mast K.F., H.-M.Mayer, Schumacher U., the ASDEX-Upgrade Team</i>	II-835
4-31 Reduction in SOL Φ_{ci} increases and impurity generation caused by RF near ω_{ci} by the use of insulating Faraday shield limiters in the Phaedrus-T tokamak, by elimination of Faraday shields, <i>Hershkowitz N., Majeski R., Diebold D., Tanaka T., Sørensen J., Breun R., Brouchous D., Fonck R., Intrator T., McKee G., Probert P.</i>	II-839
4-32 Plasma induced material transport on limiter probes in the boundary plasma of fusion experiments, <i>Naujoks D., Behrisch R.</i>	II-843
4-33 Production and control of an edge radiating layer with the ergodic divertor on TORE SUPRA, <i>Poutchy L., Vallet J.C., DeMichelis C., Grosman A., Hess W., Mattioli M., Monier-Garbet P.</i>	II-847
4-34 Edge transport induced by the interaction of a stochastic layer with the wall, <i>Nguyen F., Ghendrih Ph., Samain A., Grosman A.</i>	II-851
4-35 Control of the MHD activity with the ergodic divertor on TORE SUPRA, <i>Vallet J.C., Edery D., Van Houtte D., Mohamed-Benkadda M.S., Joffrin E., Lecoustey P., Pecquet A.L., Samain A., Talvard M.</i>	II-855

XXI

Poster-No. Title, Author(s)	Volume/Page
4-36 Plasma edge structure of a tokamak with ergodic magnetic limiter, <i>Takamura S., Oda Y., Sakurai S.</i>	II-859
4-37 Stochastic broadening in the scrape-off layer of a single-null divertor tokamak, <i>Punjabi A., Verma A., Boozer A.</i>	II-863
4-38 On stationary flow in the boundary region of toroidal systems, <i>Wobig H.</i>	II-867
4-39 Sheath potential at a target with almost parallel magnetic field, <i>Chodura R.</i>	II-871
4-41 Boundary conditions for the momentum and energy flux of ions at the plasma-sheath interface, <i>Günther K.</i>	II-875

Topic 5: Heating and Current Drive

Poster-No. Title, Author(s)	Volume/Page
5-1 Enhanced performance of neutral beam heated hot-ion H-modes on JET by central ICRF heating, <i>Bures M., Baled B., Campbell D., Cottrell G.A., Elevant T., Eriksson L-G., Jacquinot J., Jarvis N., Jones T., König R., Lomas P., Marcus F., Righi E., Sädler G., Start D.F.H., Tanga A., Van Belle P., Von Hellerman</i>	II-881
5-2 RF heating and current drive experiments in TORE SUPRA, <i>Hoang G.T., Agarici G., Beaumont B., Becoulet A., Berger G.B., Bibet P., Bizarro J.P., Capitain J.J., Carrasco J., Goniche M., Joffrin E., Kupfer K., Kuus H., Litaudon X., Moreau D., Par lange F., Peysson Y., Rey G., Saoutic B., Tonon G., Van Houtte D.</i>	II-885
5-3 ICRF power limitation relation to density limit in ASDEX, <i>Ryter F., ICRH-Group, ASDEX-Group</i>	II-889
5-4 Fast wave current drive experiments on the DIII-D tokamak, <i>Petty C.C., Pinsker R.I., Porkolab M., Baity F.W., Chiù S.C., Goulding R.H., DeGrassie J.S., Harvey R.W., Hoffman D.J., James R.A., Kawashima H., Lohr John, Luce T.C., Mayberry M.J., Prater R.</i>	II-893
5-5 Observation of fast wave ion current drive effects on sawteeth in JET, <i>Start D., Bhatnagar V., Bosia G., Brusati M., Bures M., Campbell D., Cottrell G., Cox M., DeEsch H., Edwards A., Eriksson L-G., Gormezano C., Jacquinot J., Lomas P., Marcus F., O'Brien M.R., Porcelli F., Rimini F., Stork D., Tanga A., Tubbing B., Warrick C.D., Wesson J.</i>	II-897
5-6 Resistive internal kinks and ICRF phasing current drive, <i>Porcelli F., Bhatnagar V.P., Bosia P., Cherubini A., Jacquinot J., Start D., Taroni A.</i>	II-901
5-7 Kinetic effects in fast wave current drive, <i>Becoulet A., Giruzzi G., Kupfer K., Moreau D., Saoutic B.</i>	II-905
5-8 Theoretical studies of fast wave plasma heating and current drive in tokamaks, <i>Moroz P.E., Hershkowitz N., Tataronis J.A.</i>	II-909

XXII

Poster-No. Title, Author(s)	Volume/Page
5-9 Influence of various physics phenomena on fast-wave current drive in advanced tokamaks, <i>Batchelor D.B., Jaeger E.F., Carter M.D., Goldfinger R.C., Stallings D.C.</i>	II-913
5-11 Current density profile control in reversed field pinch plasma by RF current drive, <i>Shiina S., Saito K., Kondoh Y., Ishii H., Shimada T., Hirano Y.</i>	II-917
5-15 A method of increasing the ion Bernstein wave excitation efficiency in plasmas, <i>Longinov A.V., Lukinov V.A., Pavlov S.S.</i>	II-921
5-16 The local power dissipation of ion Bernstein waves in a weakly inhomogeneous plasma, <i>Werthmann H., Brambilla M.</i>	II-925
5-17 The slot-in-recess antenna system for ion Bernstein wave excitation in plasmas, <i>Gribok V.A., Longinov A.V., Lukinov V.A.</i>	II-929
5-18 RF system for plasma production, heating in TJ-IU torsatron, <i>Ascasibar E., Castejon F., Rodriguez L., Navarro A.P., Dyakov V.E., Longinov A.V., Pavlichenko O.S., Pavlov S.S., Stepanov K.N.</i>	II-933
5-20 The separation of ion Bernstein waves and incoherent ion gyroresonant ballistic waves in a dispersive, spatially varying medium, <i>Flå T., Cook D., Tracy E., Kaufmann A.N.</i>	II-937
5-21 Plasma heating and generation current drive study in the torsatron U-2M using ion Bernstein wave, <i>Dyakov V.E., Longinov A.V.</i>	II-941
5-22 Resistive flux saving, current profile control during lower hybrid waves assisted current rise in TORE SUPRA, <i>Van Houtte D., Hoang G.T., Joffrin E., Lecouste P., Moreau D., Parlane F., Tonon G., Vallet J.C.</i>	II-945
5-23 Initial lower hybrid current drive results and first two-dimensional images of hard X-ray emission in PBX-M, <i>Von Goeler S., Asakura N., Bell R., Bernabei S., Chance M., Chu T.K., Dunlap J., England A., Fishman H., Gettelfinger G., Greenough N., Harris J., Hatcher R., Herrmann H., Ignat D., Isler R., Jardin S., Jones S., Kaita R., Kaye S., Kesner J., Kugel H., LeBlanc B., Luckhardt S., Levinton F., Manickam J., Okabayashi M., Ono M., Paul S., Preische S., Roney P., Sauthoff N., Seki S., Sesnic S., Stevens J., Takahashi H., Valeo E., Voss K.</i>	II-949
5-24 Performance of the LHCD in high current regime in JT-60U, <i>Imai T., Ushigusa K., Ikeda Y., Ide S., Naito O., Seki M., Kondoh T., Nemoto M., Wolfe S., Sato M., Takeuchi H.</i>	II-953
5-25 Change of internal inductance and anisotropy during lower hybrid current drive in ASDEX, <i>Leuterer F., Söldner F.X., Bartiromo R., Bernabei S.</i>	II-957
5-26 Electron and ion heat transport with LH, NBI heating in ASDEX, <i>Söldner F.X., Pereverzev G.V., Bartiromo R., Fahrbach H.U., Leuterer F., Murmann H.D., Steuer K.-H., LH-Team, NBI-Team, ASDEX-Team</i>	II-961
5-27 Experimental studies of high energy X-ray emission and bootstrap current generation in high β_p lower hybrid driven plasmas, <i>Squire J.P., Porkolab M., Bonoli P.T., Colborn J.A., Villaseñor J.</i>	II-965

XXIII

Poster-No. Title, Author(s)	Volume/Page
5-28 Investigation of high energy electrons produced by lower hybrid waves with measurement of the hard X-ray in JT-60U, <i>Kondoh T., Ide S., Imai T., Ushigusa K., Ikeda Y., Seki M., Takeuchi H.</i>	II-969
5-29 Characterization of LH induced current carrying fast electrons in JET, <i>Ramponi G., Airolidi A., Bartlett D., Brusati M., Froissard P., Gormezano C., Rimini F., da Silva R.P., Tanzi C.</i>	II-973
5-30 A phenomenological description of fast electrons induced by LH waves in tokamaks, <i>Conceicao P., Brusati M., Froissard P., Varandas C.A.F.</i>	II-977
5-31 Impurity transport during RF current drive in WT-3 tokamak, <i>Nakamura M., Sawada K., Kawachi T., Suemitsu H., Maekawa T., Terumichi Y., Tanaka S.</i>	II-981
5-32 The distant coupling of LHCD launcher in the JT-60U, <i>Seki M., Ikeda Y., Imai T., Ushigusa K., Naitou O., Ide S., Kondoh T., Nemoto M., Takeuchi H., Suganuma K., Sawahata M., Takasa A., Takahashi S., Yamamoto T.</i>	II-985
5-33 Coupling analysis and experiment of the multijunctional grill near the lower hybrid frequency, <i>Ohkubo K., Matsumoto K.</i>	II-989
5-36 Modulational instability development and current drive, <i>Popel S.I., Vladimirov S.V., Tsytovich V.N.</i>	II-993
5-39 Fast ion generation during RF discharge on the FT-2 tokamak and parametric decay instabilities, <i>Budnikov V.N., Dyachenko V.V., Esiyov L.A., Its E.R., Lashkul S.I., Novik K.M., Stepanov A.Yu., Shcherbinin O.N., Alexandrov V.O., Sakharov I.E., Shatalin S.V.</i>	II-997
5-43 Measurements of electron cyclotron emission during high power ECRH in the W7-AS stellarator, <i>Gasparino U., Hartfuß H.J., Tribaldos V., Tutter M., W7-AS Team, ECRH Group</i>	II-1001
5-44 Simulations of fast electron generation by stimulated Raman forward scattering in a magnetized plasma, <i>Bertrand P., Ghizzo A., Karttunen S.J., Pätkangas T.J.H., Salomaa R.E., Shoucri M.</i>	II-1005
5-45 Effects of fluctuations on magnetohydrodynamic wave heating and current drive, <i>Tataronis J.A., Antani S.N.</i>	II-1009
5-46 Radial diffusion of toroidally trapped particles induced by lower hybrid and fast waves, <i>Krlin L.</i>	II-1013
5-47 ICRF Minority plasma heating in realistic geometries, <i>Friedland L., Cohen D.</i>	II-1017
5-48 Simulation of runaway electrons in a toroidal geometry, <i>Sipilö S.K., Heikkinen J.A., Pätkangas T.J.H.</i>	II-1021
5-49 Modelling of the FMS wave propagation and transformation in the ion-cyclotron frequency domain for the TUMAN-3 tokamak plasma, <i>Irzak M.A., Pavlov I.P., Shcherbinin O.N.</i>	II-1025

Topic 6: Diagnostics

Poster-No. Title, Author(s)	Volume/Page
6-2 Neutral particle analysis in the MeV range in JET, <i>Petrov M.P., Afanasyev V.I., Corti S., Gondhalekar A., Khudoleev A.V., Korotkov A.A., Maas A.C.</i>	II-1031
6-3 Investigation of alpha particle slowing-down features in helium neutral beam fuelling experiments at JET, <i>Von Hellermann M., Core W.G.F., Friesling J., Horton L.D., König R., Mandl W., Summers H.P., Wolle B.</i>	II-1035
6-5 Prospects for investigation of alpha particles velocity distribution by charge exchange spectroscopy in ITER, <i>Korotkov A.A., Belik V.P., Shmaenok L.A., Platonov Yu.Ya., Salashchenko N.N.</i>	II-1039
6-6 Helium stopping cross-section in fusion plasma taking into account the multistep collision processes, <i>Korotkov A.A.</i>	II-1043
6-7 Neutron spectrometry concepts for diagnosing DT plasmas of $Q \approx 1$, <i>Källne J., Gorini G., Condé H., Renberg P.U.</i>	II-1047
6-8 Effects of neutron on the JET soft X-ray detectors, <i>Gill R.D., Alper B., Edwards A.</i>	II-1051
6-9 The application of x-mode reflectometry to the study of large scale density fluctuations in TFTR, <i>Mazzucato E., Nazikian R., the TFTR-Group</i>	II-1055
6-11 A multi-channel reflectometer for the RTP tokamak, <i>Heijnen S.H., Hugenholtz C.A.J., Van de Pol M.J.</i>	II-1059
6-12 A microwave reflectometric system for tokamak ASDEX upgrade, <i>Silva A., Manso M.E., Serra F., Söldner F.X., Cupido L., Pereira J., Neves J., Nunes F., Varela P., Moreira A., Fernandes C., Loureiro C., Correia C., Santos J., Zilker F.</i>	II-1063
6-13 Simulation of correlation reflectometry, <i>Michelsen P., Pécseli H.L.</i>	II-1067
6-14 Microwave reflectometry as a density fluctuation diagnostic: a comparison between a controlled laboratory experiment and a one dimensional numerical model, <i>Rhodes T.L., Baang S., Chou A.E., Domier C.W., Luhmann Jr. N.C., Peebles W.A.</i>	II-1071
6-15 Amplitude modulation reflectometry for large fusion devices, <i>Sanchez J., Zhuravlev V., De la Luna E., Estrada T., Branas B.</i>	II-1075
6-17 Fluctuations spectra in TORE SUPRA from scattering experiment, <i>Gervais F., Grésillon D., Hennequin P., Quéméneur A., Truc A., Devynck P., Garbet X., Payan J., Laviron C., Saha S.K.</i>	II-1079
6-18 From incoherent to collective scattering, <i>Maafa N., Grésillon D., Cabrit B.</i>	II-1083

Poster-No. Title, Author(s)	Volume/Page
6-19 Effects of the ohmic plasma current on collective scattering spectra, <i>Tartari U., Castiglioni S., Lontano M.</i>	II-1087
6-20 Ion temperature measurements by Rutherford scattering at TEXTOR, <i>Tammen H.F., Van Blokland A.A.E., Oyevaar Th., Schüller F.C., Donné A.J.H.</i>	II-1091
6-21 CO ₂ -scattering and RF probe measurements of lower-hybrid wave spectra in the presence of low-frequency fluctuations, <i>Fischer B., Krämer M.</i>	II-1095
6-22 Measurement of coherent temperature fluctuations on the stellarator Wendelstein 7-AS, <i>Hartfuß H.J., Sattler S., W7-AS Team, NBI-Team, ECRH-Group</i>	II-1099
6-23 Electron cyclotron non thermal spectra during ohmic and RF assisted discharges on TORE SUPRA, <i>Talvard M., Giruzzi G., Liu W.D.</i>	II-1103
6-24 First electron cyclotron emission and electron temperature profile measurements on ASDEX-upgrade, <i>Salmon N.A., Eberhagen A.</i>	II-1107
6-26 The heavy ion beam diagnostic for the tokamak ISTTOK, <i>Cabral J.A.C., Malaquias A., Praxedes A., Van Toledo W., Varandas C.A.F., Dias J.M.</i>	II-1111
6-27 Development of Boxcar imaging system for visualizing magnetic field structure in tokamak plasma, <i>Sakurai S., Ohno N., Takamura S.</i>	II-1115
6-29 Statistical analysis of luminescence signals observed during pellet injection, <i>Baldzuhn J., W7-AS Team</i>	II-1119
6-31 Dispersion interferometer for controlled fusion devices, <i>Drachev V.P., Krasnikov Yu.I., Bagryansky P.A.</i>	II-1123
6-32 Visible spectroscopic measurements on FTU, <i>Condrea I., Bartiromo R., Mazzitelli G., McNeill D.H.</i>	II-1127
6-33 Determination of O ⁸⁺ to electron density ratio by the intensity ratio of the charge exchange recombination and the Doppler-shifted H _α emissions of the injected neutral beam, <i>Kondo K., Sano F., Sudō S., Zushi H., Mizuuchi T., Okada H., Besshou S., Nagasaki K., Higashijima S., Hanatani K., Nakasuga M., Wakatani M., Obiki T.</i>	II-1131
6-34 Spatial structure of nonthermal fluctuating electric fields in the TJ-I tokamak, <i>Zurro B., Castejon F., Burgos C.</i>	II-1135
6-37 Fast analysis of spectral data using neural networks, <i>Roach C.M.</i>	II-1139
6-38 Tomography algorithms for visible light tomography on RTP, <i>Pickalov V.V., Ingesson L.C., Donne A.J.H., Schram D.C.</i>	II-1143
6-39 Investigation of the sensitivity of visible continuum Z _{eff} (0) to edge radiation, <i>Telesca G., Van Oost G., Onghena J., Leyns C., Schoon N.</i>	II-1147

XXVI

Poster-No. Title, Author(s)	Volume/Page
6-40 Spatially resolved diagnostics of inhomogeneous low temperature plasmas: new techniques, <i>Neger T., Jäger H.</i>	II-1151
6-41 Localized impurity flux measurements on Wendelstein 7-AS, <i>Hofmann J.V., W7-AS Team, ECRH Group, NI Group</i>	II-1155
6-42 Diagnostic for hydrogen behaviour at edge regions of high temperature plasmas, <i>Muraoka K., Maeda M., Honda C., Okada T., Uchino K., Kajiwara T., Takenaga H.</i>	II-1159
6-43 Determination of plasma edge parameters with fast lithium beams, <i>Schweinzer J., McCormick K., Fiedler S., Aumayr F., Pöckl M., Winter H.</i>	II-1163
6-44 Sniffer probe measurements in W7-AS, <i>Wolff H., Grigull P., Poschenrieder W., Roth J., Pech P., the W7-AS Team</i>	II-1167
6-47 Electric current collection by Langmuir probe in strong magnetic fields, <i>Stanojevic M., Cercek M., Jelic N., Gyergyek T.</i>	II-1171
6-48 A double probe for electron flux measurements in inhomogeneous and time-varying plasmas, <i>Axnäs I., Torvén S.</i>	II-1175
6-49 A processing method of the probe characteristic in a two electron temperature plasma, <i>Ruscanu D., Popa G., Stamate E.</i>	II-1179
6-50 Comparison of the wavenumber sensitivity and spatial resolution between Langmuir probes and reflectometry in a longitudinally magnetized RF plasma waveguide, <i>Anabitarte E., Senties J.M., Bustamante E.G., Calderon M.A.G., San Jose M.A.G., Monterde P., Vila J.</i>	II-1183
6-51 RF pulse interaction with low density plasma diagnosed by gated Langmuir probe, <i>Cicconi G., Paris P.J., Rosatelli C., Tarditi A.</i>	II-1187
6-57 Development of a diagnostic system for high power microwave (FEL) electric fields in the microwave tokamak experiment, <i>Oda T., Odajima K., Takiyama K., Foote J.H., Mizuno K., Ogawa T., Sato K., Ohasa K., Hoshino K., Maeda H., Nilson D.G.</i>	II-1191
6-59 Laser shadowgraphic study of plasma sheath in dense plasma focus in the presence of external axial magnetic field, <i>Rawat R.S., Srivastava M.P., Mohanty S.R.</i>	II-1195
6-61 Measurement of plasma drifts in space and laboratory plasmas by the resonance cone technique, <i>Rohde V., Piel A.</i>	II-1199
6-62 The time-delay of a microwave signal, backscattered at the hybrid resonance and new possibilities for the diagnostics of small-scale plasma fluctuations, <i>Arhipenko V.I., Simonchik L.V., Budnikov V.N., Gusakov E.Z., Piliya A.D., Selenin V.L.</i>	II-1203
6-65 Excimer laser driven soft X-ray plasma source: preliminary results, <i>Palladino L., Reale A., Taglieri G., Batani D., Bollanti S., Di Lazzaro P., Flora F., Letardi T., Schina G., Belli M., Scafati A.</i>	II-1207

XXVII

Poster-No. Title, Author(s)	Volume/Page
6-67 Measurements of intense plasma streams with Faraday-type collectors, <i>Baranowski J., Sadowski M., Skladnik-Sadowska E.</i>	II-1211
6-68 New Cerenkov detectors for studies of fast electron beams from plasma discharges, <i>Jakubowski L., Sadowski M., Zebrowski J.</i>	II-1215
6-70 Application of laser induced ionisation to atomic hydrogen density measurements in high temperature plasma, <i>Gladuschk V.I., Gusev V.K., Kantor M.Yu., Petrov Yu.V., Razdobarin G.T., Semenov V.V., Tolstyakov S.Yu.</i>	II-1219

Topic 7: Inertial Confinement Fusion

Poster-No. Title, Author(s)	Volume/Page
7-1 Absorption of KrF laser pulses in laser produced plasmas, <i>Matsushima I., Koyama K., Tomie T., Matsumoto Y., Owadano Y.</i>	II-1225
7-3 Nonstationary stimulated Brillouin scattering in laser plasma, <i>Rubenchik A.M., Ochirov B.D., Kozochkin S.M., Maluyta D.D., Strel'tsov A.P., Shirokikh A.V.</i>	II-1229
7-4 Absorption process by ion acoustic turbulence, <i>Torres-Silva H., Sakanaka P.H.</i>	II-1233
7-5 Absorbed power into the plasma by laser radiation and determination of reflection coefficient in the implosion of deuterium-tritium pellets corresponding to the inertial confinement fusion, <i>Blazquez J.F.M.</i>	II-1237
7-7 Effect of electron velocity distribution on the heating of core by corona in spherical pellet, <i>Singh D.P., Giannanco F., Salvetti A., Vaselli M.</i>	II-1241
7-8 Influence of partial charge exchange on effective charge of swift heavy ions flowing through dense hydrogen plasmas, <i>Maynard G., Katsonis K., Deutsch C.</i>	II-1245
7-9 Numerical simulations of X-ray diagnostics in ICF, <i>Humbert P.</i>	II-1249
7-11 Plasma driven liners, <i>Kilic H., Linhart J.G., Bortolotti A., Bilbao L., Nardi V.</i>	II-1253
7-13 Axial magnetic field generation in a nonuniform laser produced plasma, <i>Srivastava M.K., Lawande S.V., Khan M., Das C., Chakraborty B.</i>	II-1257
7-14 Stabilization of the Rayleigh-Taylor instability by convection and thermal conduction in smooth density gradient: WKB analysis, <i>Bud'ko A., Liberman M.A., Bondarenko E.A.</i>	II-1261

XXVIII

Poster-No. Title, Author(s)	Volume/Page
7-17 Fusion-fission triggers for advanced fuels, <i>Linhart J.G.</i>	II-1265

Topic 8: General Plasma Theory

Poster-No. Title, Author(s)	Volume/Page
8-1 Wave collapse of strong lower-hybrid turbulence, <i>Bingham R., Su J.J., Dawson J.M., Shapiro V.D., Shevchenko V., Tsytovich V.N.</i>	II-1271
8-2 Empirical spectral codes for tokamak turbulence, <i>Smith G.R., Cohen R.H., Boerner E.D., Dimits A.M.</i>	II-1275
8-5 Frequency and heater power dependency of RF generated Langmuir turbulence, <i>Hanssen A., Mjølhus E.</i>	II-1279
8-7 Nonlinear modulational instability of whistler waves, <i>Karpman V.I., Lynov J.-P., Michelsen P., Rasmussen J.J.</i>	II-1283
8-8 Low-frequency kinetic structures in plasma quasiparticle concept, <i>Sitenko A.G., Sosenko P.P.</i>	II-1287
8-15 A novel approach to the interaction between the plasma wake field and the driving relativistic electron beam, <i>Fedele R., Shukla P.K.</i>	II-1293
8-18 Simultaneous emissions at harmonics and half harmonics of the electron gyrofrequency, <i>Krafft C., Matthieu G., Belmont G.</i>	II-1297
8-20 Intense laser pulse propagation in a plasma, <i>Kaw P.K., Sen A., Katsouleas T.</i>	II-1301
8-21 Nonlinear depletion of short, relativistically strong laser pulses in an underdense plasma, <i>Bulanov S.V., Inovenkov N., Kirsanov V.I., Naumova N.M., Sakharov A.S.</i>	II-1305
8-25 Nonlinear modulated waves near marginal state of instability, <i>Flå T., Wyller J.</i>	II-1309
8-27 Plasma oscillations wave breaking in inhomogeneous collisional plasmas, <i>De Nicola S., Nappi C.</i>	II-1313
8-30 Nonlinear absorption on the front of relativistically strong electromagnetic pulse in an underdense plasma, <i>Bulanov S.V., Inovenkov I.N., Kirsanov V.I., Naumova N.M., Sakharov A.S., Shah H.A.</i>	II-1317
8-31 "Plasma maser" effect in turbulent plasma with regular and random magnetic fields, <i>Pryadko J.M., Tsytovich V.N.</i>	II-1321

XXIX

Poster-No. Title, Author(s)	Volume/Page
8-32 Nonlinear evolution of the modulational instability and chaos by using 1D-Zakharov equations, <i>Sharma R.P., Verga A.D.</i>	II-1325
8-33 Energy of linear quasi-neutral electrostatic drift waves, <i>Pfirsch D., Correa-Restrepo D.</i>	II-1329
8-34 General theory of modulational interactions of two modes, <i>Vladimirov S.V., Tsytovich V.N.</i>	II-1333
8-35 Nonlinear evolution of solitons with oscillations under the influence of resonant ions, <i>Honzawa T., Arakawa M., Singh S.</i>	II-1337
8-36 3D non-linear kinetic equation for the calculation of neoclassical effects in tokamak plasmas, <i>Zaitsev F.S., O'Brien M.R., Cox M.</i>	II-1341
8-37 Nonlinear Langmuir pulses in the active plasma, <i>Bachin I.V., Prudsky V.V.</i>	II-1345
8-39 Soliton formation in quasiparallel MHD waves, <i>Hamilton R.L., Kennel C.F., Mjølhus E.</i>	II-1349
8-41 Nonlinear wave behaviour determined by high-frequency plasma response, <i>Georgieva M., Khristova D., Shivarova A.</i>	II-1353
8-42 Evolution of electron two-stream instability and generation of nonlinear structure, <i>Tanaka M.</i>	II-1357
8-44 Gyroinvariant second order drifts in electric fields of the same order of the magnetic field, <i>Martin P.</i>	II-1361
8-45 Charge shielding by trapped ion orbits in a dusty plasmas, <i>Goree J.</i>	II-1365
8-48 Vlasov solution describing nonadiabatic plasma heating by magnetic compression, <i>Persson H., Ågren O.</i>	II-1369
8-50 The Padé approximate method for solving problems in plasma kinetic theory, <i>Jasperse J.R., Basu B.</i>	II-1373
8-51 Correlation theory of particle distribution near the plasma boundary in the presence of strong electric field, <i>Korchinsky G.M., Yakimenko I.P., Zagorodny A.G.</i>	II-1377
8-54 Possible changes of temperature and density power law exponents in expressions for plasma transport quantities under many particle interaction conditions, <i>Larenz R.W.</i>	II-1381
8-56 Dynamical screening in the Coulomb relaxation of anisotropic plasmas, <i>Wolf U., Schamel H.</i>	II-1385

XXX

Poster-No. Title, Author(s)	Volume/Page
8-57 Wiedemann-Franz-Law for magnetized plasmas, <i>Hensler E.</i>	II-1389
8-58 The influence of toroidicity, pressure and local profile changes on tearing mode stability, <i>Connor J.W., Cowley S.C., Hastie R.J., Martin T.J.</i>	II-1393
8-60 Linear and non-linear modelling of island control in tokamaks, <i>Hansen B.M.S., Hellberg M.A., Sherwell D., Roberts D.E., McCloud W.S.</i>	II-1397
8-61 Resistive wall instabilities for axisymmetric systems, <i>Berge G., Freidberg J.P.</i>	II-1401
8-62 Stability of force-free axisymmetric spherical plasma with flow, <i>Sugimoto H., Ashida H., Kurasawa T.</i>	II-1405
8-64 Internal disruption = catastrophic ergodisation, <i>Dubois M.A., Hennequin P., Nakach R., Sabot R.</i>	II-1409
8-65 Stability of ideal ballooning modes near a magnetic island, <i>Hegna C.C., Callen J.D.</i>	II-1413
8-66 Sheared flow effects on resistive pressure-gradient-driven turbulence, <i>Garcia L., Carreras B.A., Lynch V.E., Diamond P.H.</i>	II-1417
8-67 Mechanism of MHD modes stabilization by the ergodic divertor, <i>Edery D., Samain A., Vallet J.C., Morera J.P., Joffrin E., Lecouste P., Pecquet A.L., Talvard M.</i>	II-1421
8-68 Nonlinear island dynamics, <i>Schep T.J., Pegoraro F., Rem J.</i>	II-1425
8-69 Magnetic reconnection in electron-magnetohydrodynamics, <i>Bulanov S.V., Pegoraro F., Sakharov A.S.</i>	II-1429
8-70 Radial propagation of microturbulence in tokamaks, <i>Garbet X., Laurent L., Roubin J.P., Samain A.</i>	II-1433
8-71 On the threshold of the ion temperature gradient driven mode, <i>Guo S.C., Romanelli F., Rewoldt G., Tang W.M.</i>	II-1437
8-72 Stability and transport due to ITG modes in a toroidal plasma with impurities, trapped electrons and vortex formation effects, <i>Jarmen A., Fröjd M., Pavlenko V., Weiland J.</i>	II-1441
8-74 Dissipative-drift wave instability in the presence of impurity radiation, <i>Bharuthram R., Shukla P.K.</i>	II-1445
8-75 Nonadiabaticity and toroidal mode coupling in collisional drift waves, <i>Schlüter M., Scott B.D.</i>	II-1449

Poster-No. Title, Author(s)	Volume/Page
8-76 On the "captured" energy in freely decaying two-dimensional hydrodynamic and drift-wave plasma turbulence, <i>Bazdenkov S.V., Kukharkin N.N.</i>	II-1453
8-77 Effect of parallel heat flows on electron heat conduction losses due to electrostatic turbulence, <i>Becker G.</i>	II-1457
8-79 An energy balance approach to L-H transition at the edge, <i>Martineil J.J., Ramos G.</i>	II-1461
8-80 Pedestal sustenance, heat transport at the edge in the H-transition, <i>Minardi E.</i>	II-1465
8-81 Non-standard high energy ion orbits, <i>Eriksson L.-G., Berk H., Porcelli F., Stankiewicz R.</i>	II-1469
8-83 Plasma transport as a dissipative structure, <i>Uehara K.</i>	II-1473
8-84 Ambipolar transport in a magnetically perturbed tokamak edge-region, <i>Wittenberg R.W., Hellberg M.A., Feneberg W.</i>	II-1477
8-85 Neoclassical transport with surface variation of the macroscopic quantities, <i>Feneberg W.</i>	II-1481
8-87 Time-dependent neutron rate interpretation for deuterium injection into deuterium plasmas, <i>Wolle B., Eriksson L.-G., Hübnér K., Morgan P.D., Sadler G., Tsintsadze L.N., Von Hellermann M.G.</i>	II-1485
8-88 Multidimensional WKB solution of a wave equation, <i>Pereverzev G.V.</i>	II-1489
8-89 Electron cyclotron emission and absorption in two dimensional momentum distribution, <i>Bornatici M.</i>	II-1493
8-90 Oblique propagation of electron-cyclotron-waves in non-maxwellian, weakly relativistic Vlasov-plasmas, <i>Moser F.</i>	II-1497
8-92 Partially transient plasma response near an attainable harmonic state, <i>Lim C.S., Suchy K.</i>	II-1501
8-94 Mode coupling of the ordinary and extraordinary waves in a cylindrical plasma, <i>Ramsay D., Laing E.W.</i>	II-1505
8-97 High frequency electrostatic plasma instabilities and turbulence in the lower ionosphere, <i>Basu B., Jasperse J.R., Retterer J.M., Decker D.T., Chang T.</i>	II-1509
8-99 Numerical calculation based on multipole expansions was used to study the linear instability in a DP-Machine, <i>Cereceda C., Ruiz J., Puerta J.</i>	II-1513

XXXII

Poster-No.	Volume/Page
Title, <i>Author(s)</i>	
8-100 Dispersion characteristics of electromagnetic waves in dipolar ($m=+/-1$) modes travelling along a magnetized plasma column, <i>Benova E., Ghanashev I., Zhelyazkov I.</i>	II-1517
8-102 Cyclotron autoresonance current drive in tokamaks, <i>Kuyanov A.Yu., Skovoroda A.A., Timofeev A.V., Zvonkov A.V.</i>	II-1521
8-103 Application of a reconstructive MHD code based on the formalism of the toroidal multipoles to the ITER tokamak, <i>Alladio F., Laloucis P., Micozzi P.</i>	II-1525
8-105 MHD theory with induced surface current effects, <i>Lehnert B.</i>	II-1529
8-107 Exact surface waves on spheres, cylinders, <i>Yu M.Y., Stenflo L.</i>	II-1533
8-109 1 st and 2 nd elliptic solutions to the extended Grad-Shafranov-Schlüter equation for asymmetric tokamak plasma with stationary flows, <i>Zelazny R., Stankiewicz R., Galkowski A., Potempski S.</i>	II-1537
8-110 A new fast 2-d MHD-equilibrium solver, <i>Hübner G.</i>	II-1541
8-111 A civil engineering approach to ideal MHD, <i>Jensen V.O.</i>	II-1545
8-112 A general formulation of the nonlinear plasma theories, <i>Kühn S., Assis A.S.</i>	II-1549
8-113 Uniqueness of solution to a stationary boundary kinetic problem, <i>Zhykharsky A.</i>	II-1553
8-114 Solution to the boundary kinetic problem presenting the interaction of plasma flows with a solid, <i>Zhykharsky A., Shmykov V.</i>	II-1557
8-115 A theoretical model for transient cataphoretic segregation, <i>Dumitrascu N., Berbece D., Popa Gh.</i>	II-1561