

# TABLE OF CONTENTS

## PART 1

<b>CHARACTERISATION OF EDGE FILAMENTARY STRUCTURES IN THE 3D GEOMETRY OF WENDELSTEIN 7-X LIMITER PLASMAS</b> .....	1
<i>G. Kocsis, A. Alonso, C. Biedermann, G. Cseh, A. Dinklage, O. Grulke, M. Jakubowski, R. König, M. Krychowiak, M. Otte, T.S. Pedersen, T. Szepesi, U. Wenzel, P. Xanthopoulos, S. Zoletnik</i>	
<b>TOWARDS A PHYSICS-BASED UNDERSTANDING OF THE L-H TRANSITION POWER THRESHOLD</b> .....	5
<i>L. Schmitz, Z. Yan, T.L. Rhodes, P. Gohil, G.R. McKee, L. Zeng, B. Grierson, L. Bardoczi, D. Eldon, C.C. Petty</i>	
<b>THE ROLE OF RADIAL ELECTRIC FIELD AND NEOCLASSICAL TRANSPORT IN THE ESTABLISHMENT AND SUSTAINMENT OF THE EDGE TRANSPORT BARRIER IN THE ASDEX UPGRADE TOKAMAK</b> .....	9
<i>M. Cavedon, T. Pütterich, E. Viezzer, G. Birkenmeier, M. G. Dunne, R. Dux, E. Fable, T. Happel, F.M. Laggner, P. Manz, F. Ryter, U. Stroth, E. Wolfrum</i>	
<b>INVESTIGATION OF TURBULENCE PROPERTIES VIA SPECTRAL BROADENING OF DOPPLER REFLECTOMETRY SIGNALS IN ASDEX UPGRADE</b> .....	13
<i>G. Conway, C. Lechte, P. Hennequin, P. Simon</i>	
<b>CLEANING AND ACTIVATION OF ALUMINIUM METAL USING AN ATMOSPHERIC-PRESSURE POSTDISCHARGE</b> .....	17
<i>J. Muñoz, J. Bravo, M. Calzada, R. Rincón, C. Melero, C. González-Gago</i>	
<b>IN SITU MEASUREMENTS OF SPECTRAL REFLECTIVITY OF METALLIC MIRRORS IN LOW DENSITY PLASMAS</b> .....	21
<i>O. Marchuk, S. Dickheuer, C. Brandt, A. Pospieszczyk, A. Gorjaev, M. Ialovega</i>	
<b>MEASURING OF MEAN ELECTRICAL CONDUCTIVITY OF A PLASMA VOLUME IN HOT ANODE AREA OF DC ARC PLASMA TORCHES</b> .....	25
<i>P. Ondac, A. Maslani, M. Hrabovsky, J. Jenista, V. Sember</i>	
<b>LABORATORY OBSERVATION OF THE STABILIZATION OF SUPERSONIC PLASMA JETS BY EMERGENT VELOCITY SHEAR</b> .....	29
<i>M. Gilmore, Y. Zhang, D. Fisher, S. Hsu</i>	
<b>PLASMA PREPARATION FOR ALPHA-PARTICLE EXCITATION OF TAES IN JET DT PLASMAS</b> .....	33
<i>J. Mailloux, R. Dumont, V. Aslanyan, M. Baruzzo, C. D. Challis, I. Coffey, A. Czarnecka, E. Delabie, J. Eriksson, J. Ferreira, M. Fitzgerald, L. Giacomelli, C. Giroud, N. Hawkes, P. Jacquet, E. Joffrin, T. Johnson, D. Keeling, D. King, V. Kiptily, B. Lomanowski, E. Lerche, M. Mantsinen, S. Menmuir, K. McClements, S. Moradi, M. Nocente, A. Patel, H. Patten, P. Puglia, R. Scannell, S. Sharapov, E. Solano, M. Tsalas, P. Vallejos, H. Weisen</i>	
<b>OPTIMISING THE USE OF ICRF WAVES IN JET HYBRID PLASMAS FOR HIGH FUSION YIELD</b> .....	37
<i>M. Mantsinen, D. Gallart, E. Belonohy, C. Challis, A. Czarnecka, J. Eriksson, D. Frigione, J. Graves, M. Goniche, C. Hellesen, J. Hobirk, P. Jacquet, E. Joffrin, D. King, N. Krawczyk, M. Lennholm, E. Lerche, E. Pawelec, G. Sips, E.R. Solano, M. Tsalas, M. Valisa</i>	
<b>THE EFFECT OF HELIUM ON PLASMA PERFORMANCE AT ASDEX UPGRADE AND JET</b> .....	41
<i>A. Kappatou, C. Angioni, A.C. Sips, E. Lerche, T. Pütterich, M. Dunne, R. Neu, C. Giroud, C. Challis, J. Hobirk, H. Kim, I. Nunes, M. Tsalas, K. Cave-Ayland, D.F. Valcarcel, S. Menmuir, A. Lebschy, E. Viezzer, R.M. McDermott, S. Potzel, F. Ryter, L. Frassinetti, E. Delabie, S. Saarelma, M. Bernert</i>	
<b>MIXED HYDROGEN-DEUTERIUM PLASMAS ON JET ILW: H-MODE CONFINEMENT AND ISOTOPE MIXTURE CONTROL</b> .....	45
<i>D.B. King, E. Viezzer, M. Baruzzo, E. Belonohy, J. Buchanan, I. Carvalho, K. Cave-Ayland, I. Coffey, C. Challis, E.G. Delabie, A. Drenik, L. Garzotti, J. Hillesheim, L. Horvath, E. Joffrin, D. Keeling, K. Kirov, C.F. Maggi, M. Maslov, S. Saarelma, E. Solano, M. Stamp, D. Valcarcel, H. Weisen</i>	
<b>FROM LARGE-AMPLITUDE KINETIC ALFVÉN FLUCTUATIONS TO KINETIC TURBULENCE AT PROTON SCALES</b> .....	49
<i>C.L. Vasconez, F. Valentini, O. Pezzi, S. Servidio, F. Malara, F. Pucci</i>	
<b>PLASMA RESPONSE TO A VARIABLE ELECTRIC MULTIPOLE CONFIGURATION</b> .....	53
<i>N. Hicks, A. Bowman</i>	
<b>IMPACT OF MAGNETIC PERTURBATIONS ON THE DIVERTOR HEAT LOAD IN L- AND H-MODE AT ASDEX UPGRADE</b> .....	57
<i>M. Faitsch, B. Sieglin, T. Eich, A. Herrmann, W. Sutrop</i>	
<b>SCRAPE-OFF LAYER POWER FALL-OFF LENGTHS FROM TURBULENCE SIMULATIONS</b> .....	61
<i>J.M. Olsen, A.H. Nielsen, J. Madsen, J.J. Rasmussen, T. Eich, M. Komm, A. Dvornova</i>	
<b>A QUANTITATIVE DESCRIPTION OF THERMAL TRANSPORT IN THE SOL OF ASDEX UPGRADE</b> .....	65
<i>D. Carralero, S. Artene, G. Birkenmeier, M. Faitsch, P. Manz, P. de Marne, B. Sieglin, U. Stroth, N. Vianello, M. Wischmeier, E. Wolfrum</i>	
<b>INVESTIGATING FIELD ALIGNED SCRAPE-OFF-LAYER FLOW STRUCTURES AT MAST WITH THE EMC3-EIRENE CODE</b> .....	69
<i>I. Waters, S. Silburn, H. Frerichs, Y. Feng, J. Harrison, A. Kirk, O. Schmitz</i>	
<b>PHYSICS OF THE CREATION AND MITIGATION OF RUNAWAY ELECTRON BEAMS IN PRESENCE OF THEIR BACKGROUND PLASMA</b> .....	73
<i>C. Reux, S. Jachmich, E. Joffrin, I. Coffey, O. Ficker, S. Gerasimov, V. Kiptily, U. Kruezi, M. Lehnen, U. Losada, A. Martin, J. Mlynar, E. Nardon, V. Plyusnin, V. Riccardo, F. Saint-Laurent, G. Szepesi, S. Silburn</i>	
<b>FAST-ELECTRON DYNAMICS IN THE PRESENCE OF WEAKLY IONIZED IMPURITIES</b> .....	77
<i>L. Hesslow, O. Embréus, G. Wilkie, T.C. DuBois, G. Papp, T. Fülöp</i>	

<b>MULTI-MACHINE ANALYSIS OF TERMINATION SCENARIOS, PROVIDING THE SPECIFICATIONS FOR CONTROLLED SHUTDOWN OF ITER DISCHARGES</b> .....	81
<i>P. de Vries, T.C. Luce, Y.S. Bae, S. Gerhardt, X. Gong, Y. Gribov, D. Humphreys, A. Kavin, R.R. Khayrutdinov, C. Kessel, S.H. Kim, A. Loarte, V. E. Lukash, E. De la Luna, I. Nunes, F. Poli, J. Qian, M. Reinke, O. Sauter, A.C.C. Sips, J.A. Snipes, J. Stober, W. Treutterer, A.A. Teplukhina, I. Voitsekhovitch, M.H. Woo, S. Wolfe, L. Zabeo</i>	
<b>OBSERVATION AND MITIGATION OF PARASITIC EFFECTS OF EDGE PLASMA BY HIGHER OPERATING FREQUENCY IN LHCD EXPERIMENTS IN EAST</b> .....	85
<i>B. Ding, M. Li, F. Napoli, A. Cardinali, C. Castaldo, R. Cesario, A. Tuccillo, Y. Li, P. Bonoli, R. Parker, S. Baek, S. Ceccuzzi, M. Wang, Y. Wang, Y. Yang, B. Lv, S. Lin, L. Hu, J. Shan, F. Liu, X. Gong, J. Li, B. Wan</i>	
<b>ITG HEAT FLUX REDUCTION IN JETTO-TGLF MODELLING OF HIGH CURRENT HIGH PERFORMANCE JET PULSES</b> .....	89
<i>G. Szepesi, C. Roach, F. Casson, C. Challis, J. Garcia, L. Garzotti, H. Kim, L. Irvine, E. Lerche, F. Rimini, J. Candy, G. Staebler</i>	
<b>VALIDATION STUDIES OF ION-SCALE GENE SIMULATIONS IN L-MODE PLASMAS AT ASDEX UPGRADE</b> .....	93
<i>S.J. Freethy, A. Creely, T. Gorler, G.D. Conway, T. Happel, P. Hennequin, J. Pinzon, D. Prisiazhniuk, U. Stroth, A.E. White</i>	
<b>ROBUSTNESS OF SELF-ORGANIZED CRITICALITY BEHAVIORS IN FLUX DRIVEN FULL-F GYROKINETIC SIMULATIONS</b> .....	97
<i>Y. Asahi, V. Grandgirard, Y. Idomura, X. Garbet, G. Latu, Y. Sarazin, G. Dif-Pradalier, P. Donnel, C. Ehrlacher</i>	
<b>INTEGRATED MODELING OF MULTI-CHANNEL TRANSPORT INCLUDING TUNGSTEN IN JET</b> .....	101
<i>S. Breton, F. Casson, C. Bourdelle, Y. Camenen, J. Citrin, Y. Baranov, C. Challis, J. Garcia, G. Corrigan, L. Garzotti, S. Henderson, F. Koechl, M. O'Mullane, T. Pütterich, M. Sertoli, M. Valisa</i>	
<b>MHD STABILITY AND ENERGY PRINCIPLE: BEYOND NESTED FLUX SURFACES</b> .....	105
<i>S. Medvedev, A. Martynov, V. Drozdov, A. Ivanov, Y. Poshekhnov, S. Konovalov, L. Villard</i>	
<b>MODELING EDGE MHD INSTABILITIES AND THEIR INTERACTION WITH MAGNETIC PERTURBATIONS IN ASDEX UPGRADE</b> .....	109
<i>F. Orain, M. Hoelzl, F. Mink, M. Dunne, E. Viezzer, M. Becoulet, G. Huijsmans, M. Willensdorfer, S. Guenter, W. Sutrop, S. Pamela, K. Lackner, A. Lessig, E. Wolftrum, B. Vanovac, V. Bandaru, N. Schwarz, J. Artola</i>	
<b>INFLUENCE OF TOROIDAL RIPPLE ON PEELING-BALLOONING STABILITY IN THE PEDESTAL OF H-MODE PLASMAS</b> .....	113
<i>T. Weyens, A. Loarte, G. Huijsmans, R. Sanchez, L. Garcia</i>	
<b>PLASMA HEATING BY COUNTER IRRADIATING ULTRA-INTENSE LASER PULSES</b> .....	117
<i>Y. Mori, Y. Nishimura, R. Hanayama, S. Nakayama, K. Ishii, Y. Kitagawa, T. Sekine, Y. Takeuchi, T. Kurita, Y. Katoh, N. Satoh, N. Kurita, T. Kawashima, O. Komeda, T. Hioki, T. Motohiro, A. Sunahara, Y. Sentoku, E. Miura, A. Iwamoto, H. Sakagami</i>	
<b>ON THE INTERACTION OF A NEGATIVE-ION BEAM WITH ULTRADENSE PLASMA: LINEAR BEAM-PLASMA INSTABILITY AND ELECTROSTATIC SOLITON CHARACTERISTICS</b> .....	121
<i>I. Elkamash, F. Haas, I. Kourakis</i>	
<b>COMPRESSING TURBULENCE WITH PLASMA VISCOSITY</b> .....	125
<i>S. Davidovits, N. Fisch</i>	
<b>DETACHMENT ONSET IN MAST-U ACCORDING TO SOLPS-ITER</b> .....	129
<i>D. Moulton, B. Lipschultz, J. Harrison</i>	
<b>TOWARDS INTEGRATED DATA ANALYSIS OF DIVERTOR DIAGNOSTICS WITH RAY-TRACING</b> .....	133
<i>M. Carr, A. Meakins, M. Bernert, A. Callarelli, A. Field, C. Giroud, J. Harrison, N. Hawkes, S. Henderson, B. Lipschultz, T. Lunt, D. Moulton, F. Reimold</i>	
<b>PARAMETER DEPENDENCE OF THE SEPARATRIX DENSITY IN NITROGEN SEEDED ASDEX UPGRADE H-MODE DISCHARGES</b> .....	137
<i>A. Kallenbach, H. Sun, D. Carralero, T. Eich, J. Hobirk, A. Scarabosio, M. Siccino</i>	
<b>COMPARISON BETWEEN LIQUID LITHIUM AND LIQUID TIN LIMITERS IN FTU</b> .....	141
<i>M. Iafrai, G. Mazzitelli, M. Apicella, G. Apruzzese, J. S. Loureiro, I. Lyublinski, A. Vertkov, A. Berlov, G. Maddaluno, F. Crescenzi, A. Mancini</i>	
<b>SUPPRESSION OF EDGE LOCALIZED MODES AND IMPROVEMENT OF PLASMA CONFINEMENT PERFORMANCE BY FLOWING LIQUID LITHIUM LIMITER IN EAST</b> .....	145
<i>G. Zuo, J. Hu, R. Maingi, Z. Sun, Q. Yang, M. Huang, X. Meng, W. Xu, J. Li, A. Diallo, R. Lunsford, D. Mandfield, T. Osborne, K. Tritz</i>	
<b>MOMENTUM TRANSPORT BY NEUTRALS: EFFECT OF KINETIC COUPLING</b> .....	149
<i>J.T. Omotani, S.L. Newton, I. Pusztai, R. McDermott, M. Cavedon, T. Fülöp</i>	
<b>MODELING OF L-MODE PLASMA INTRINSIC ROTATION IN ASDEX UPGRADE</b> .....	153
<i>I. Erofeev, E. Fable, C. Angioni, W. Hornsby, R. McDermott</i>	
<b>MEASUREMENTS OF CRITICAL GRADIENT BEHAVIOR OF FAST-ION TRANSPORT FROM ALFVEN EIGENMODES FOR PREDICTIVE MODEL DEVELOPMENT</b> .....	157
<i>C.S. Collins, W. Heidbrink, M. Podesta, R. White, G. Kramer, D. Pace, C. Petty, L. Stagner, M. Van Zeeland, Y. Zhu</i>	
<b>3D INVESTIGATIONS OF A RADIO-FREQUENCY PLASMA WITH A LANGMUIR PROBE</b> .....	161
<i>S. Devaux, E. Faudot, J. Moritz, S. Heuraux</i>	
<b>PROGRESS AND FIRST MEASUREMENTS FROM THE UPGRADED ALFVÉN EIGENMODE ACTIVE DIAGNOSTIC ON JET</b> .....	165
<i>V. Astlyan, M. Porkolab, P. Woskov, P. Puglia, W. Pires de Sa, R. Galvao, L. Ruchko, A. Dos Reis, S. Sharapov, S. Dorling, S. Dowson, H. Sheikh, T. Blackman, G. Jones, A. Goodyear, K. Kirov, J. Mailloux, M. Tsalas, M. Maslov, A. Whitehead, R. Scannell, S. Gerasimov, R. Dumont, P. Blanchard, A. Fasoli, D. Testa, F. Nabais, J. Figueiredo, C. Perez von Thun</i>	
<b>DESIGN AND EXPERIMENTAL VALIDATION OF AN EDDY CURRENTS PROBE</b> .....	169
<i>F. Villone, P. Testoni, R. Albanese, G. Betta, P. Calderoni, D. Capriglione, L. Ferrigno, M. Laracca, R. Palmaccio, A. Rasile, G. Rubinacci, S. Ventre</i>	
<b>TOKAMAK GOLEM FOR FUSION EDUCATION - CHAPTER 8</b> .....	173
<i>J. Cеровsky, M. Farnik, M. Sos, J. Svoboda, O. Ficker, M. Heflejs, P. Svihra, M. Shkut, O. Grover, J. Veverka, V. Svoboda, J. Stockel, J. Adamek, M. Dimitrova</i>	
<b>SHINE-THROUGH IN ELECTRON CYCLOTRON EMISSION MEASUREMENTS</b> .....	177
<i>S.S. Denk, R. Fischer, O. Maj, E. Poli, M. Willensdorfer, J. Stober, U. Stroth, W. Sutrop</i>	
<b>PARTICLE-IN-CELL SIMULATIONS OF LANGMUIR PROBES AT COMPASS TOKAMAK</b> .....	181
<i>A. Podolnik, M. Komm, J. Adamek, P. Hacek, J. Krbec, R. Dejarnac, R. Panek, J. Gunn</i>	
<b>NEW POSSIBILITIES OF PROBE REGISTRATION OF ANISOTROPIC DISTRIBUTION FUNCTIONS OF CHARGED PARTICLES IN PLASMAS WITH ARBITRARY SYMMETRY</b> .....	185
<i>A. Grabovskiy, A. Mustafaev, O. Murillo, V. Soukhomlinov</i>	
<b>INFLUENCE OF THE PLASMA BACKGROUND ON THE CRITICAL SIZE OF 3D SCRAPE-OFF LAYER FILAMENTS</b> .....	189
<i>D. Schwörer, N.R. Walkden, H. Leggate, B.D. Dudson, F. Militello, T. Downes, M.M. Turner</i>	
<b>FIRST RESULTS OF W7-X - RELEVANT CONDITIONING PROCEDURES ON THE UPGRADED TOMAS DEVICE</b> .....	193
<i>A. Goriaev, T. Wauters, S. Möller, R. Brakel, A. Dinklage, K. Crombé, M. Van Schoor</i>	
<b>FIRST DETACHMENT STUDIES ON COMPASS TOKAMAK USING NITROGEN SEEDING</b> .....	197
<i>M. Komm, J. Cavalier, J. Seidl, J. Adamek, B. Petra, P. Bohm, A. Devitre, M. Dimitrova, S. Elmore, M. Faisch, P. Hacek, J. Havlicek, M. Imrisek, J. Krbec, M. Peterka, R. Panek, T. Popov, M. Tomes, V. Weinzel</i>	
<b>PEDESTAL PARTICLE TRANSPORT DURING THE ELM CYCLE AT ASDEX UPGRADE</b> .....	201
<i>E. Wolftrum, F.M. Laggner, S. Keerl, J. Gnisen, G. Birkenmeier, E. Fable, L. Guimarães, F. Mink</i>	
<b>DIVERTOR HEAT LOAD STUDY IN COMPASS USING IR THERMOGRAPHY AND DIVERTOR PROBES</b> .....	205
<i>P. Vondracek, J. Adamek, J. Cavalier, A. Devitre, J. Horacek, M. Hron, R. Panek, M. Peterka, J. Seidl</i>	
<b>INVESTIGATION OF GAS FUELLING CHARACTERISTICS IN JET EXPERIMENTS</b> .....	209
<i>A. Salmi, R. Gomes, J. Harrison, A. Jarvinen, L. Meneses, S. Mordijck, V. Naulin, J. Rasmussen, T. Tala, A. Thrysoe, A. Wynn, E. Belonohy, A. Loarte, M. Maslov, M. Romanelli, A. Sips, M. Tsalas</i>	
<b>COMPARATIVE STUDY OF A CONVENTIONAL, QUASI-SNOWFLAKE AND LIQUID LITHIUM DIVERTOR FOR THE DTT (DIVERTOR TEST TOKAMAK) TOKAMAK</b> .....	213
<i>G. Rubino, B. Viola</i>	
<b>PEDESTAL STRUCTURE IN HIGH CURRENT SCENARIOS IN JET-ILW AND JET-C</b> .....	217
<i>E. Stefanikova, L. Frassinetti, I. Nunes, F. Rimini, L. Garzotti, E. Lerche, P. Lomas, S. Saarelma, A. Loarte, P. Drewelow, U. Kruezi, B. Lomanowski, E. de la Luna, L. Meneses, M. Peterka, B. Viola, C. Giroud, C. Maggi</i>	
<b>INVESTIGATING PRIMARY RUNAWAY ELECTRON GENERATION MECHANISMS WITH TEST PARTICLES IN NON-LINEAR MHD DISRUPTION SIMULATIONS</b> .....	221
<i>C. Sommariva, E. Nardon, G. Huijsmans, M. Hoelzl, D. van Vugt</i>	
<b>EXPLORATION OF NEW MODE OF OPERATION FOR THE DEVICE BEYOND THE ITER IN KSTAR</b> .....	225
<i>H.K. Park, J. Kim, J. Chung, B.H. Park, S. Jardin</i>	
<b>COMPARATIVE STUDY BETWEEN MHD SIMULATION CODES FOR NONLINEAR DYNAMICS OF THE ELMS IN KSTAR H-MODE PLASMA</b> .....	229
<i>M. Kim, J. Lee, H.K. Park, G.S. Yun, X. Xu, S.C. Jardin, M. Becoulet</i>	
<b>MULTIPLE-HARMONICS RMP EFFECT ON TEARING MODES IN EXTRAP T2R</b> .....	233
<i>R. Fridström, P. Brunell, L. Frassinetti, C. Setiadi</i>	
<b>CHARACTERIZATION AND FORECASTING OF GLOBAL AND TEARING MODE STABILITY FOR TOKAMAK DISRUPTION AVOIDANCE</b> .....	237
<i>J.W. Berkery, S. Sabbagh, J. Riquezes, S. Gerhardt, C. Myers</i>	
<b>STATUS AND PROGRAM OF CONCEPT EXPLORATION HELICAL MIRROR DEVICE</b> .....	241
<i>A.V. Sudnikov, A.D. Beklemishev, V.V. Postupaev, I.A. Ivanov, A.V. Burdakov, A.A. Inzhevatkina, N.A. Zhuravlev</i>	
<b>THEORETICAL AND NUMERICAL STUDIES ON ELECTROMAGNETIC DISRUPTION FORCES</b> .....	245
<i>V. Pustovitov, G. Rubinacci, F. Villone</i>	
<b>ANALYSIS OF THE INITIAL STAGE OF DISCHARGE IN THE T-15MD TOKAMAK</b> .....	249
<i>I. Zotov, D. Sychugov, N. Kasyanova, A. Melnikov, V. Dokuka, V. Lukash, R. Khayrutdinov, S. Tsaun, A. Sadykov</i>	
<b>AN ANALYSIS OF THE PHYSICS REQUIREMENTS FOR SCENARIO CONTROL FOR THE ECRF SYSTEM OF JT-60SA</b> .....	253
<i>C. Sozzi, L. Figini, D. Farina, D. Micheletti, S. Nowak, P. Platania, A. Moro, D. Ricci, T. Kobayashi, S. Moriyama, A. Isayama, J. Garcia, L. Garzotti, M. Romanelli, N. Hayashi</i>	
<b>SPATIAL STRUCTURE OF TEMPERATURE AND OUTWARD CONVECTION OF SUPRATHERMAL PERPENDICULAR IONS IN THE TJ-II STELLARATOR</b> .....	257
<i>B. Zurro, M. Martínez, A. Baciero, V. Tribaldos, B. López-Miranda</i>	
<b>VALIDATION OF THE FOKKER-PLANCK ANALYSIS FOR NB BLIP EXPERIMENT ON LHD</b> .....	261
<i>H. Nuga, R. Seki, S. Kamio, M. Osakabe, M. Yokoyama</i>	
<b>SUPPRESSION OF PARAMETRIC INSTABILITIES INDUCED BY LOWER HYBRID WAVES</b> .....	265
<i>C. Castaldo, F. Napoli</i>	
<b>A VERY HIGH PERVEANCE NBI SYSTEM DEVELOPMENT FOR VEST TOKAMAK</b> .....	269
<i>S. Jeong, T. Kim, B. Jung, S. In, K. Lee</i>	
<b>NEUTRAL BEAM INJECTION MODELLING IN JT-60SA AXISYMMETRIC EQUILIBRIA</b> .....	273
<i>M. Vallar, T. Bolzonella, R. Coelho, J. Garcia, T. Kurki-Suonio, L. Pigatto, K. Sarkimaki, J. Varje, M. Romanelli</i>	
<b>MODEL-BASED DESIGN, SIMULATION AND TESTING OF AN ELECTRON TEMPERATURE PROFILE CONTROLLER ON ASDEX-UPGRADE</b> .....	277
<i>F. Felici, O. Kudlacek, T. Ravensbergen, W. Treutterer, T. Blanken, A. Teplukhina, O. Sauter, B. Geiger, L. Giannone, M. Reich, J. Stober, M. Willensdorfer</i>	

<b>ACTIVE CONTROL FOR CURRENT DISSIPATION OF RUNAWAY ELECTRONS IN TCV</b> .....	281
<i>D. Carnevale, G. Ferrò, B. Esposito, M. Gobbin, C. Galperti, J. Decker, M. Gospodarczyk, S. Coda, U. Sheikh, B. Duval, G. Papp, P. Buratti, F. Causa, S. Galeani, F. Martinelli, V. Plyusnin, C. Possieri, M. Sassano</i>	
<b>VALIDATION OF RAPTOR SIMULATIONS ON THE FIRST NBI-HEATED L-MODE TCV PLASMAS WITH INTERNAL TRANSPORT BARRIERS</b> .....	285
<i>C. Piron, O. Sauter, S. Coda, A. Merle, A. Karpushov</i>	
<b>AN AUTOMATED APPROACH TO PLASMA BREAKDOWN DESIGN WITH APPLICATION TO WEST</b> .....	289
<i>H. Heumann, E. Nardon</i>	
<b>A CONTROL-ORIENTED MODEL FOR BREAKDOWN AND BURN-THROUGH IN TCV AND ITS APPLICATION</b> .....	293
<i>T. Ravensbergen, F. Felici, H. Reimerdes, J. Sinha</i>	
<b>H-MODE PEDESTAL STUDIES WITH SEEDING AND FUELLING ON TCV</b> .....	297
<i>U.A. Sheikh, L. Frassinetti, P. Blanchard, M. Dunne, B. Duval, A. Merle, H. Meyer, C. Theiler, K. Verhaegh</i>	
<b>NEOCLASSICAL IMPURITY TRANSPORT IN STELLARATORS</b> .....	301
<i>S.L. Newton, P. Helander, A. Mollén, H. Smith</i>	
<b>PARTICLE CONFINEMENT ISOTOPE EFFECT IN FT-2 TOKAMAK</b> .....	305
<i>A. Gurchenko, E. Gusakov, A. Altukhov, L. Esipov, M. Kantor, T. Kiviniemi, T. Korpilo, D. Kouprienko, S. Lashkul, S. Leerink, R. Rochford, L. Chóné, G. Troshin, V. Ivanov</i>	
<b>TRANSPORT IN THE DIII-D STEADY-STATE HYBRID REGIME AS THE TORQUE IS DECREASED AND ELECTRON HEATING INCREASED</b> .....	309
<i>K. Thome, C. Petty, B. Grierson, G. McKee, F. Turco</i>	
<b>ELM-INDUCED COLD PULSES PROPAGATION IN ASDEX UPGRADE</b> .....	313
<i>E. Trier, E. Wolfrum, M. Willensdorfer, Q. Yu, F. Ryter, C. Angioni, M. Dunne, S. Denk, R. Fischer, P. Hennequin, B. Kurzan, T. Odstrcil, P.A. Schneider, U. Stroth, B. Vanovac</i>	
<b>OBSERVATION OF THE GENERALIZED NEOCLASSICAL TOROIDAL VISCOSITY OFFSET ROTATION PROFILE AND IMPLICATIONS FOR ITER</b> .....	317
<i>S.A. Sabbagh, Y.S. Park, J. Kim, J. Ko, W.H. Ko, K.C. Shaing, Y. Sun, S.H. Hahn, Y. In, Y.M. Jeon, H.H. Lee, J.H. Lee, S.G. Lee, Y.K. Oh, J. Seol, J.W. Yoo</i>	
<b>THE INFLUENCE OF MAGNETIC TURBULENCE ON INTERNAL TRANSPORT BARRIERS OF REVERSED FIELD PINCH</b> .....	321
<i>R. Lorenzini, F. Auremma, A. Fassina, E. Martinez, B. Momo, Y. Zhang</i>	
<b>ISOTOPE DEPENDENCE OF LIMIT-CYCLE OSCILLATIONS IN ASDEX UPGRADE PLASMAS</b> .....	325
<i>G. Birkenmeier, T. Happel, P. Hennequin, G. Conway, P. Manz, M. Cavedon, A. Medvedeva, F. Ryter, E. Wolfrum, U. Stroth</i>	
<b>INTER-ELM FLUCTUATIONS AND FLOWS AND THEIR EVOLUTION WHEN APPROACHING THE DENSITY LIMIT IN THE ASDEX UPGRADE TOKAMAK</b> .....	329
<i>P. Hennequin, F. Laggner, F. Mink, E. Wolfrum, E. Trier, T. Eich, M. Bernert, G. Birkenmeier, G. Conway, T. Happel, C. Honore, O. Gurcan, P. Manz, A. Medvedeva, U. Stroth</i>	
<b>MAGNETIC CONFIGURATION EFFECTS ON THE RADIAL ELECTRIC FIELD AND THE REYNOLDS STRESS IN THE PLASMA EDGE</b> .....	333
<i>P. Manz, G. Birkenmeier, M. Cavedone, N. Fedorczak, S. Garland, U. Plank, M. Ramisch, T. Ribeiro, B. Schmid, B. Scott</i>	
<b>THE EFFECT OF ELECTRON CYCLOTRON HEATING ON DENSITY FLUCTUATIONS AT ION AND ELECTRON SCALES IN ITER BASELINE SCENARIO DISCHARGES ON DIII-D</b> .....	337
<i>A. Marinoni, R.I. Pinsky, M. Porkolab, E.M. Davis, J.C. Rost, K.H. Burrell, J. Candy, G.M. Staebler, B.A. Grierson, G.R. McKee, T.L. Rhodes</i>	
<b>LH-TRANSITION DYNAMICS IN THE PRESENCE OF GAM AND PELLET-INJECTION</b> .....	341
<i>A. Belokurov, L. Askinazi, V. Bulanin, L. Chóné, A. Gurchenko, E. Gusakov, T. Kiviniemi, V. Kornev, T. Korpilo, S. Krikunov, S. Lebedev, S. Leerink, P. Niskala, A. Petrov, R. Rochford, A. Tukachinsky, A. Yashin, N. Zhubr</i>	
<b>UNIFIED SCALING LAWS FOR PLASMA BLOBS AND DEPLETIONS</b> .....	345
<i>M. Wiesenberger, M. Held, A. Kendl, R. Kube, O.E. Garcia</i>	
<b>POLOIDAL ASYMMETRY OF PERPENDICULAR VELOCITY OF THE DENSITY FLUCTUATIONS</b> .....	349
<i>V. Laure, P. Hennequin, O. Gurcan, C. Honore, P. Morel, A. Storelli, F. Clairet, X. Garbet, J. Giacalone, R. Sabot</i>	
<b>IMPURITY TRANSPORT STUDIES ON THE GLOBUS-M TOKAMAK</b> .....	353
<i>A. Ibtaminova, A. Alekseyev, P. Aruev, N. Bakharev, V. Gusev, N. Khromov, G. Kurskiev, A. Nikolaev, Y. Petrov, N. Sakharov, S. Tolstyakov, V. Zbrodsky</i>	
<b>FINITE ORBIT WIDTH EFFECTS ON RESONANT TRANSPORT REGIMES OF NEOCLASSICAL TOROIDAL VISCOUS TORQUE WITHIN THE HAMILTONIAN APPROACH</b> .....	357
<i>C.G. Albert, M.F. Heyn, S.V. Kasilov, W. Kernbichler, A.F. Martisch</i>	
<b>SIMULATION STUDIES ON ION ACCELERATION DRIVEN BY 10 PW LASER</b> .....	361
<i>M. Matys, J. Psikal, D. Margarone</i>	
<b>OPTICAL INJECTION INTO THE LASER WAKEFIELD ACCELERATOR BY CO-PROPAGATING WEAKER PULSE</b> .....	365
<i>V. Horný, M. Krus</i>	
<b>PREDICTING MAXIMUM ION ENERGIES IN TARGET NORMAL SHEATH ACCELERATION USING A SHEATH THEORY FOR ARBITRARY ELECTRON DISTRIBUTIONS</b> .....	369
<i>H. Schmitz</i>	
<b>EFFECTIVENESS OF LASER ACCELERATED ULTRA HIGH DOSE RATE PROTONS IN DNA DSB DAMAGE INDUCTION UNDER HYPOXIC CONDITIONS</b> .....	373
<i>P. Chaudhary, D.C. Gwynne, D. Doria, L. Romagnani, C. Maiorino, A. Alejo, N. Booth, D. Carroll, S. Kar, P. McKenna, G. Schettino, M. Borghesi, K.M. Prise</i>	
<b>CONTROLLING SELF-INJECTION IN LWFA THROUGH PLASMA DENSITY MODULATION</b> .....	377
<i>M.P. Tooley, B. Ersfeld, S. Yoffe, A. Noble, E. Brunetti, Z. Sheng, D. Jaroszynski</i>	
<b>TRANSITION TO LIGHT SAIL ACCELERATION USING ULTRAINTENSE FEMTOSECOND PULSES</b> .....	381
<i>P. Martin, D. Doria, H. Ahmed, L. Romagnani, A. McIvenny, C. Scullion, S. Williamson, E. Ditter, G. Hicks, O. Eitlinger, G. Scott, N. Booth, A. Macchi, S. Kar, P. McKenna, Z. Najmudin, M. Borghesi</i>	
<b>IONISATION INJECTION LWFA WITH FEW-CYCLE SUB-TW LASER PULSES</b> .....	385
<i>D. Papp, E. Rácz, P. Antici, C. Kamperidis</i>	
<b>GENERATION OF PROTON BEAMS FROM A HYDROCARBON TARGET IRRADIATED BY AN ULTRA-INTENSE FEMTOSECOND LASER PULSE</b> .....	389
<i>J.J. Domanski, J. Badziak, S. Jablonski</i>	
<b>EXPERIMENTAL INVESTIGATION OF RELATIVISTIC ELECTRON BEAM GENERATION IN GLASS CAPILLARIES UNDER THE ACTION OF ULTRA-INTENSE LASER PULSE</b> .....	393
<i>V. Flegentov, K. Safronov, S. Gorokhov, A. Kakshin, D. Gavrilov, E. Loboda, N. Pkhaiko</i>	
<b>FORMALISM TO STUDY THE EFFECT OF HYDROGEN ON THE PLASMA-ASSISTED GROWTH AND FIELD EMISSION PROPERTIES OF THE GRAPHENE SHEET</b> .....	397
<i>N. Gupta, S.C. Sharma, R. Gupta</i>	
<b>OF ELECTROSTATIC ENVELOPE MODES AND FREAK WAVE MODELING IN PLASMAS: REVISITING A WIDESPREAD FALLACY</b> .....	401
<i>I. Kourakis, O. Bouzit, I. Elkamash</i>	
<b>LARGE AMPLITUDE KINETIC ALFVEN EXCITATIONS IN NON-MAXWELLIAN PLASMAS</b> .....	405
<i>N.S. Saini, M. Singh, I. Kourakis</i>	
<b>PLASMA BLOB STUDIES USING A FLUORESCENT PROBE</b> .....	409
<i>M. Baquero-Ruiz, O. Chellai, A. Fasoli, I. Furno, F. Manke, P. Ricci, P. Bowen, C. Morais, W. Zhao</i>	
<b>FLUID THEORY OF GRADIENT-DRIFT INSTABILITY OF PARTIALLY-MAGNETIZED PLASMAS IN EXB FIELDS WITH FINITE ELECTRON LARMOR RADIUS EFFECTS</b> .....	413
<i>E. Sorokina, V. Lakhin, V. Ilgisonis, N. Marisov</i>	
<b>CONFINEMENT IN A WAVE-DRIVEN ROTATING PLASMA TORUS</b> .....	417
<i>N.J. Fisch, I.E. Ochs, R. Gueroult, J. Rax</i>	
<b>UPGRADE OF THE MSE DIAGNOSTIC AT ASDEX UPGRADE</b> .....	421
<i>M. Reich, O. Ford, A. Bock, A. Burckhart, D. Rittich</i>	
<b>EEDF IN THE COMPASS OPEN DIVERTOR DURING A DETACHMENT EXPERIMENT</b> .....	425
<i>M. Dimitrova, T. Popov, R. Dejarnac, M. Komm, J. Cavalier, J. Seidl, J. Krbec, J. Stockel, V. Weinzettl, P. Hacek, R. Panek</i>	
<b>A SOFTWARE TOOL FOR THE CORRECTION OF INFRARED IMAGES FOR FUSION APPLICATIONS</b> .....	429
<i>C. Corradino, A. Buscarino, M. Apicella, L. Fortuna, M. Iafrati, G. Mazzitelli</i>	
<b>SYNTHETIC RADIAL CORRELATION DOPPLER REFLECTOMETRY DIAGNOSTIC FOR FT-2 TOKAMAK</b> .....	433
<i>O. Krutkin, A. Altukhov, A. Gurchenko, E. Gusakov, S. Heuroux, M. Irzak, P. Niskala, G. Zadviisky, L. Esipov, T. Kiviniemi, C. Lechte, S. Leerink</i>	
<b>MODE CHARACTERIZATION USING LITHIUM BEAM EMISSION SPECTROSCOPY ON THE EAST TOKAMAK</b> .....	437
<i>B. Tal, A. Diallo, S. Zoletnik, G. Hu, G. Xu, R. Maingi</i>	
<b>VUV SPECTROSCOPY OF HIGH Z IMPURITY IONS IN KSTAR PLASMAS USING PROTOTYPE ITER VUV SPECTROMETERS AND DEVELOPMENT OF 2-D VUV TUNGSTEN CAMERA</b> .....	441
<i>C. Seon, K. Chai, Y. An, J. Hong, I. Song, H. Lee, T. Jeon, J. Park, J. Jang, W. Choe, M. Cheon, S. Pak, H. Lee, P. Bernascolle, R. Bamsley</i>	
<b>MICROWAVE REFLECTOMETRY FOR DENSITY PROFILE AND TURBULENCE MEASUREMENTS ON THE COMPASS TOKAMAK</b> .....	445
<i>O. Bogar, P. Bilkova, P. Bohm, J. Zajac, M. Hron, R. Panek, A. Silva, N. Varavin</i>	
<b>INTER-ELM PEDESTAL EVOLUTION IN LOW TRIANGULARITY JET-ILW DISCHARGES</b> .....	449
<i>H. Wilson, C. Bowman, S. Cowley, I. Cziegler, D. Dickinson, L. Frassinetti, K. Gibson, C. Ham, L. Horvath, A. Kirk, B. Lipschultz, A. Lunniss, C. Maggi, C. Roach, S. Saarelma, P. Snyder, A. Thornton, A. Wynn</i>	
<b>SOLEID2D-EIRENE SIMULATIONS OF PILOT-PSI PLASMAS</b> .....	453
<i>K. Jesko, Y. Marandet, H. Bufferand, J.P. Gunn, M. Valentini, G. Ciraolo, H.J. van der Meiden</i>	
<b>CROSS-FIELD PLASMA TRANSPORT IN DIVERTOR AND DIVERTOR PLASMA DETACHMENT</b> .....	457
<i>A.A. Pshenov, A.S. Kukushkin, S.I. Krasheninnikov</i>	
<b>DEVELOPMENT OF A MULTI-CHANNEL RETARDING FIELD ANALYZER FOR THE SOL PHYSICS ON EAST AND W7-X</b> .....	461
<i>M. Henkel, D. Hoschen, Y. Li, Y. Liang, D. Nicolai, N. Sandri</i>	
<b>COMPARISON OF LITHIUM GRANULE INDUCED ELM TRIGGERING THRESHOLD LEVELS FOR EAST AND DIII-D</b> .....	465
<i>R. Lunsford, Z. Sun, A. Bortolon, J. Hu, R. Maingi, A. Nagy</i>	
<b>THE EFFECT OF MAGNETIC ISLANDS ON TOKAMAK DIVERTERS</b> .....	469
<i>A. Punjabi, A.H. Boozer</i>	
<b>EFFECT OF SURFACE ROUGHNESS ON EROSION BEHAVIOUR OF TUNGSTEN DIVERTOR COMPONENTS ON ASDEX UPGRADE</b> .....	473
<i>A. Hakola, A. Lahtiinen, A. Herrmann, K. Krieger, M. Mayer, M. Oberkofler, R. Neu, V. Rohde</i>	
<b>RELATIVE SHIFT IN POSITION OF TEMPERATURE AND DENSITY PEDESTALS AT THE COMPASS TOKAMAK</b> .....	477
<i>P. Bilkova, P. Bohm, M. Komm, L. Frassinetti, E. Stefanikova, M. Peterka, M. Sos, J. Seidl, O. Grover, J. Havlicek, K. Mitosinkova, J. Varju, P. Vondracek, J. Urban, M. Imrisek, T. Markovic, V. Weinzettl, M. Hron, R. Panek</i>	
<b>EXPERIMENTAL DETERMINATION OF S/XB VALUES OF SN I EMISSION LINES IN GYM DEVICE</b> .....	481
<i>A. Cremona, A. Uccello, F. Causa, R. Caniello, S. De Iulius, R. Dondè, G. Gervasini, F. Ghezzi, G. Granucci, L. Laguardia, V. Mella, D. Minelli, A. Nardone, M. Pedroni, D. Ricci, N. Rispoli, E. Vassallo</i>	

<b>RADIO-FREQUENCY SHEATHS IN AN OBLIQUE MAGNETIC FIELD</b> .....	485
<i>A. Somers, H. Leggate, S. Binwal, S. Karkari, M. Turner</i>	
<b>TOROIDAL ROTATION REVERSALS IN JET PLASMAS</b> .....	489
<i>M.F. Nave, J. Bernardo, E. Delabie, M. Barnes, B. Baruzzo, L. Meneses, J. Ferreira, J.C. Hillesheim, A. Mauriya, F. Parra, M. Romanelli</i>	
<b>OBSERVATION OF THE DYNAMO EFFECT IN A REVERSED FIELD PINCH</b> .....	493
<i>R. Chahine, W. Bos, N. Plithon</i>	
<b>TIME-DEPENDENT ELM-RESOLVED EQUILIBRIUM RECONSTRUCTION ON ASDEX UPGRADE</b> .....	497
<i>P.J. Mc Carthy, L. Giannone, M.G. Dunne, R. Fischer, C. Fuchs, K. Schuhbeck</i>	
<b>THREE-DIMENSIONAL NUMERICAL STUDY OF GLOBAL FLOW EFFECTS ON INTERCHANGE INSTABILITIES</b> .....	501
<i>K. Ichiguchi, Y. Suzuki, Y. Todo, M. Sato, K. Ida, S. Sakakibara, S. Ohdachi, Y. Narushima, B.A. Carreras</i>	
<b>ADVANCES IN THE DEVELOPMENT OF DIS_TOOL AND FIRST ANALYSIS ON TCV DISRUPTIONS</b> .....	505
<i>A. Pau, A. Fanni, B. Cannas, G. Sias, M. Baruzzo, S. Coda, B. Labit, A. Murari, G. Pautasso, G. Rattà, O. Sauter, M. Tsalas</i>	
<b>EQUILIBRIUM RECONSTRUCTION ANALYSIS OF TCV TOKAMAK PLASMAS IN THE EU-IM PLATFORM</b> .....	509
<i>R. Coelho, W. Zwingmann, B. Faugeras, E. Giovanozzi, P. McCarthy, E. Suchkov, F. Zaitsev, O. Sauter, F. Carpanese, J. Moret</i>	
<b>EXPERIMENTAL OBSERVATION OF MULTI-SCALE INTERACTIONS IN THE HL-2A CORE NBI PLASMAS</b> .....	513
<i>W. Chen, M. Jiang, Y. Xu, P. Shi, L. Yu, X. Ding, Z. Shi, X. Ji, D. Yu, Y. Li, Z. Yang, W. Zhong, Z. Qiu, J. Li, M. Xu, Q. Yang, Y. Liu, L. Yan, X. Duan</i>	
<b>KINETIC SIMULATIONS OF W IMPURITY TRANSPORT BY ELMS</b> .....	517
<i>D.C. van Vugt, G.T. Huijsmans, M. Hoelzl, L.P. Kamp, N.J. Lopes Cardozo, A. Loarte</i>	
<b>INVESTIGATION OF MHD ACTIVITY CAUSED BY SHATTERED PELLET INJECTION VIA JOREK 3D NON-LINEAR MHD SIMULATIONS</b> .....	521
<i>D. Hu, E. Nardon, G. Huijsmans, M. Lehnen, D. van Vugt</i>	
<b>POTENTIAL OF HELICONS AT 0.5 GHZ AND LOWER HYBRID WAVES AT 4.6 GHZ FOR OFF-AXIS CURRENT DRIVE IN DIII-D</b> .....	525
<i>R.I. Pinsky, C.P. Moeller, M. Porkolab, C.T. Holcomb</i>	
<b>NONLINEAR COLLISIONLESS ELECTRON CYCLOTRON ABSORPTION IN THE PRE-IONIZATION STAGE</b> .....	529
<i>D. Farina</i>	
<b>PREDICTIVE MODELLING OF NBI WALL LOADS IN W7-X SCENARIOS EXHIBITING VANISHING BOOTSTRAP CURRENT</b> .....	533
<i>J. Kontula, S. Akäslompolo, Y. Turkin, S. Bozhakov, N. Rust, T. Kurki-Suonio</i>	
<b>EFFECT OF 3D MAGNETIC PERTURBATIONS ON FAST ION CONFINEMENT IN THE EUROPEAN DEMO</b> .....	537
<i>J. Varje, P. Agostinetti, T. Kurki-Suonio, A. Snicker, P. Sonato, K. Särkimäki, F. Villone, P. Vincenzi</i>	
<b>FIRST MHD EQUILIBRIUM CHARACTERIZATION AND ELECTROMAGNETIC WAVES INTERACTION ON HYDROGEN PLASMA IN THE SCR-1 STELLARATOR</b> .....	541
<i>R. Solano Piedra, A. Köhn, I. Vargas Blanco, F. Coto Vilchez, M. Rojas Quesada, L.D. López Quesada, J. Sánchez Castro, J. Asenjo Castillo, J. Mora Meléndez</i>	
<b>SELF-CONSISTENT NONLINEAR KINETIC MODELING OF RUNAWAY-ELECTRON DYNAMICS</b> .....	545
<i>A. Stahl, O. Embréus, G. Wilkie, M. Landreman, G. Papp, T. Fülöp</i>	
<b>OVERVIEW OF COMMISSIONING OPERATIONS ON THE NATIONAL SPHERICAL TORUS EXPERIMENT UPGRADE (NSTX-U)</b> .....	549
<i>F. Bedoya, R. Bell, J. Berkery, M.D. Boyer, A. DiIallo, E. Fredrickson, S. Gerhardt, W. Guttenfelder, M. Jaworski, S. Kaye, B. LeBlanc, R. Perkins, M. Podesta, R. Maingi, D. Mueller, J. Menard, C. Myers, M. Ono, R. Raman, S. Sabbagh, F. Scotti, V. Soukhanovskii</i>	
<b>IMPACT OF NEON SEEDING ON FUSION PERFORMANCE IN JET ILW HYBRID PLASMAS</b> .....	553
<i>C.D. Challis, E. Belonohy, A. Czarnecka, D. Frigione, C. Giroud, J. Graves, J. Hobirk, A. Huber, E. Joffrin, N. Krawczyk, K. Lawson, M. Mantsinen, K. McClements, T. O’Gorman, S. Silburn, G. Sips, E. Solano</i>	
<b>FEATURES OF THE PULSED MODE OF THE ECR PLASMA HEATING AT THE L-2M STELLARATOR</b> .....	557
<i>V. Borzosekov, G. Batanov, M. Berezhetski, S. Grebenshchikov, I. Grishina, V. Ivanov, N. Kharchev, A. Kharchevsky, Y. Kholnov, L. Kolik, E. Konchekov, A. Letunov, V. Logvinenko, D. Malakhov, A. Meshcheryakov, A. Petrov, K. Sarkysyan, N. Skvortsova, V. Stepakhin, D. Vasilkov, I. Vafin</i>	
<b>TEMPORAL CHARACTERISTICS OF MHD MODES INITIATING DISRUPTIONS</b> .....	561
<i>V. Klevarova, P. De Vries, M. Lehnen, G. Pautasso, T. Markovic, M. Komm, J. Havlicek, J. Snipes, H. Zohm, G. Verdoolaege</i>	
<b>ST40: PLANS AND STATUS OF CONSTRUCTION</b> .....	565
<i>O. Asunta, M. Gryaznevich, P.F. Buxton</i>	
<b>IMPACT OF REALISTIC FAST ION DISTRIBUTION FUNCTION IN GYROKINETIC GENE SIMULATIONS</b> .....	569
<i>A. Di Siena, T. Görler, H. Doerk, R. Bilato, J. Citrin, T. Jonsson, M. Schneider, E. Poli</i>	
<b>CALCULATING TUNGSTEN DENSITY PROFILES IN DIII-D PLASMAS USING THE STRAHL TRANSPORT CODE</b> .....	573
<i>B.S. Victor, S.L. Allen, C.T. Holcomb, T.W. Petrie, E.A. Unterberg, D.M. Thomas, B.A. Grierson, E.M. Hollmann</i>	
<b>IMPURITY ACCUMULATION MONITORING USING MULTIPLE DIAGNOSTICS AT ASDEX-UPGRADE</b> .....	577
<i>O. Kudlacek, T. Blanken, F. Felici, W. Treutterer, O. Sauter, C. Piron</i>	
<b>INVESTIGATION OF MOMENTUM AND PARTICLE TRANSPORT INDUCED FROM MAGNETIC PERTURBATION AND RF HEATING IN KSTAR</b> .....	581
<i>S. Lee, J. Yoo, J. Seol, H. Lee, L. Terzolo</i>	

<b>THE SOL TURBULENCE CHARACTERISTICS IN THE FIRST EXPERIMENTAL CAMPAIGN ON W7-X</b> .....	585
<i>S. Liu, Y. Liang, P. Drews, D. Nicolai, G. Saheeswaran, K. Hollfeld, N. Sandri, D. Hoschen, N. Wang, A. Kramer-Flecken, M. Henkel, M. Rack, X. Han, E. Wang, Y. Wei, J. Cai, Y. Gao, O. Neubauer, O. Grulke, R. König, J. Geiger</i>	
<b>MHD INSTABILITIES CONNECTED WITH TRANSPORT BARRIERS DEVELOPMENT</b> .....	589
<i>N. Timchenko, K. Razumova</i>	
<b>FLUX DRIVEN TRANSPORT MODELLING OF ASDEX UPGRADE DISCHARGES WITH THE QUASILINEAR GYROKINETIC CODE QUALIKIZ</b> .....	593
<i>O. Linder, J. Citrin, G.M. Hogewej, C. Angioni, C. Bourdelle, F.J. Casson, A. Ho, F. Koechl, M. Sertoli</i>	
<b>ELECTROMAGNETIC FILAMENTS AND EDGE MODIFICATIONS INDUCED BY ELECTRODE BIASING IN THE RFX-MOD TOKAMAK</b> .....	597
<i>G.G. Grenfell, M. Spolaore, R. Cavazzana, L. Carraro, P. Franz, S. Spagnolo, B. Zaniol, M. Zuin, L. Cordaro, S. Dalbello, G. Demasi, C. Finotti, L. Grandi, P. Innocente, O. Kudlacek, G. Marchiori, E. Martines, B. Momo, R. Paccagnella, P. Piovesan, C. Piron, M. Puiatti, M. Recchia, P. Scarin, C. Taliercio, N. Vianello, L. Zanotto</i>	
<b>ITB FORMATION IN SIMULATIONS OF NONLINEAR TURBULENT CONVECTION IN TOKAMAK CORE PLASMAS</b> .....	601
<i>V. Pastukhov, D. Smirnov</i>	
<b>EXPERIMENTAL TECHNIQUES AT ALCATOR C-MOD AND ASDEX UPGRADE FOR VALIDATION OF GYROKINETIC SIMULATIONS</b> .....	605
<i>A.J. Creely, G.D. Conway, S.J. Freethy, T. Goerler, T. Happel, A.E. White</i>	
<b>DIMENSIONLESS SCALING OF INTRINSIC TOROIDAL ROTATION</b> .....	606
<i>J.S. deGrassie, S.P. Smith, W.M. Solomon</i>	
<b>NONLINEAR ELECTROMAGNETIC STABILIZATION OF ITG MICROTURBULENCE BY ICRF-DRIVEN FAST IONS IN ASDEX UPGRADE</b> .....	610
<i>F. Oliveira Lopes, H. Doerk, M.J. Mantsinen, C. Angioni, R. Bilato, V. Bobkov, M. Dunne, D. Gallard, A. Gutiérrez-Milla, P. Mantica, T. Odsureil, G. Tardini, X. Saez</i>	
<b>DEVELOPMENT OF THE RUNAWAY ELECTRON MODELLING CAPABILITIES OF THE EUROPEAN TRANSPORT SIMULATOR</b> .....	614
<i>G.I. Pokol, M. Aradi, B. Erdos, G. Papp, A. Hadar, T. Jonsson, D. Coster, D. Kalupin, P. Strand, J. Ferreira</i>	
<b>HIGHLY COLLISIONAL REGIMES IN FTU</b> .....	618
<i>C. Mazzotta, G. Pucella, O. D’Arcangelo, O. Tudisco, M. Apicella, G. Mazzitelli</i>	
<b>EFFECT OF IDEAL KINK MODES IN PARTICLE REDISTRIBUTION</b> .....	622
<i>H.E. Ferrari, R. Farengo, P. Garcia-Martinez, A. Lifschitz, M. Firpo</i>	
<b>REYNOLDS STRESS AND FLUCTUATION MEASUREMENTS WITH LANGMUIR AND BALL-PEN PROBES IN THE VICINITY OF THE L-H TRANSITION ON COMPASS</b> .....	626
<i>O. Grover, J. Seidl, J. Adamek, P. Vondracek, M. Tomes, V. Weinzettl, M. Hron, R. Panek</i>	
<b>REALTIME CAPABLE QUASILINEAR GYROKINETIC MODELLING USING NEURAL NETWORKS</b> .....	630
<i>K.L. van de Plassche, J. Citrin, C. Bourdelle, V.I. Dagnelie, A. Ho</i>	
<b>PHASES OF PLASMA PRODUCED WITH NANOSECOND LASER</b> .....	634
<i>J. Krasa, M. De Marco, J. Cikhart, M. Pfeifer, A. Velyhan, D. Klir, K. Rezac, M. Kris, J. Dostal, R. Dudzák, J. Skala</i>	
<b>XUV NANOSECOND LASER ABLATION FOR PULSED LASER DEPOSITION OF LITHIUM FLUORIDE AND CAESIUM IODIDE</b> .....	638
<i>O. Frolov, K. Kolacek, J. Schmidt, J. Straus, A. Choukourov, P. Pira</i>	
<b>CURRENT AND PLANNED FUTURE EXPERIMENTS WITH RELATIVISTIC HIGH HARMONIC GENERATION USING THE JETI200 LASER</b> .....	642
<i>S. Bruschetta, B. Walter, K. Sarawathula, R. McHugh, G. Schafer, M. Yeung, E. Eckner, C. Rodel, G. Paulus, A. Savert, L. Lu, B. Dromey, M. Zepf</i>	

## PART 2

<b>INVESTIGATING THE RESPONSE OF GAFCHROMIC EBT-3 FILM TO HIGH LET RADIATION</b> .....	646
<i>K. Polin, D. Doria, C. Scullion, G. Candiano, G. Cirrone, R. Manna, G. Milazzo, G. Petringa, F. Romano, V. Scuderi, M. Borghesi</i>	
<b>A COMPACT NEUTRON SOURCE BY A HIGH VOLTAGE RING CATHODE DISCHARGE</b> .....	650
<i>M. Watanabe, A. Miyauchi, A. Takeuchi, T. Kamada</i>	
<b>ROLE OF ETCHANT ON THE MORPHOLOGY OF PLASMA GROWN CARBON NANOFIBERS: THEORETICAL MODELING</b> .....	654
<i>R. Gupta, S.C. Sharma, N. Gupta</i>	
<b>THEORETICAL INVESTIGATIONS TO STUDY THE EFFECT OF C<sub>2</sub>H<sub>2</sub>/H<sub>2</sub> GAS RATIO ON THE MULTI-WALLED CARBON NANOTUBES GROWTH</b> .....	658
<i>U. Sharma, S.C. Sharma, R. Gupta, N. Gupta</i>	
<b>NEGATIVE ION STUDIES ON THE RF PLASMA DEVICE MAGPIE</b> .....	662
<i>H.V. Willett, J. Santoso, C. Corr, K. Gibson</i>	
<b>INSTABILITY OF ELECTRON-POSITRON PLASMAS DRIVEN BY PRESSURE GRADIENTS</b> .....	666
<i>M. Pueschel, P. Terry, B. Tyburska-Pueschel</i>	
<b>MODELLING ELECTROSTATIC WAVES AND SOLITONS IN POSITRON-LADEN PLASMAS: SHEDDING NEW LIGHT ON AN OLD PROBLEM</b> .....	669
<i>V.J. McMullan, I. Elkamash, I. Kourakis</i>	
<b>STABILITY CRITERIA OF IDEAL MAGNETOHYDRODYNAMIC PLASMAS WITH FLOWS</b> .....	673
<i>T. Andreussi, P.J. Morrison, F. Pegoraro</i>	

<b>SYSTEMATIC STUDY ON SOFT X-RAY SPECTRA FROM HEAVY IONS IN OPTICALLY THIN AND THICK PLASMAS</b> .....	677
<i>C. Suzuki, I. Murakami, H. Koike, T. Higashiguchi, H.A. Sakaue, N. Tamura, S. Sudo, G. O'Sullivan</i>	
<b>STUDY OF AR PHOTOIONISATION PHYSICS USING VULCAN</b> .....	681
<i>R. Irwin, S. White, R. Warwick, F.P. Keenan, G. Gribakin, G. Sarri, M. Nolley, S. Astbury, S. Rose, E. Hill, D. Riley</i>	
<b>CORONAL RAIN AND SHOWERS IN THE SOLAR ATMOSPHERE</b> .....	685
<i>R. Keppens, C. Xia</i>	
<b>NONLINEAR WAVE-PARTICLE DYNAMICS IN CHORUS EXCITATION</b> .....	689
<i>F. Zonca, X. Tao, L. Chen</i>	
<b>METALLIC GAS RESISTIVITY MEASUREMENTS AND TESTING OF PLASMA RADIAL EXPANSION MODELS WITH AN EXPLODING WIRE</b> .....	693
<i>G.R. Prieto, M. Barbaglia, L. Bilbao</i>	
<b>RADIATIVE LOSSES OF ALPHA PARTICLES ON TUNGSTEN IMPURITIES IN THERMONUCLEAR PLASMAS</b> .....	697
<i>D. Leontyev, A. Demura, V. Lisitsa, V. Shurygin</i>	
<b>INVESTIGATION OF IMPURITY COOLING FACTOR ROBUSTNESS AGAINST TRANSPORT AND APPLICATION TO GEM DETECTORS FOR W CORE DENSITY RECONSTRUCTION ON WEST</b> .....	701
<i>A. Jardin, D. Mazon, M. O'Mullane, P. Malard, M. Chernyshova, G. Kasprovicz</i>	
<b>COMPARISON OF SPECTROSCOPIC AND PROBE DATA IN A MAGNETIC MIRROR HELIUM PLASMA</b> .....	705
<i>S. Knott, C. Roche, A. Ruth, P. Mac Cárthaigh</i>	
<b>ELECTRON CYCLOTRON EMISSION MEASUREMENTS AT THE OPTICALLY THIN PLASMAS OF THE STELLARATOR TJ-K</b> .....	709
<i>G. Scharadt, L. Bock, E. Holzhauser, A. Köhn, M. Ramisch, T. Hirth</i>	
<b>FLUCTUATION RESPONSE ANALYSIS OF PLASMA TURBULENCE WITH BES DIAGNOSTICS</b> .....	713
<i>Ö. Aszalos, G. Pokol, S. Zolotnik, D. Guszejnov, G. Hu, C. Ran, G. Xu</i>	
<b>DESIGN OF CXRS DIAGNOSTIC FOR THE COMPASS TOKAMAK AND FIRST RESULTS</b> .....	N/A
<i>M. Tomes, V. Weinzettl, J. Varju, M. Imrisek, K. Mitosinkova, M. Hron, R. Panek, G. Zadvitskiy, S. Heuroux, S. Hacquin, C. Lechte, R. Sabot</i>	
<b>EDGE TURBULENCE EFFECTS ON CORE RADIAL K-SPECTRUM EXTRACTED FROM REFLECTOMETRY DATA</b> .....	717
<i>G. Zadvitskiy, S. Heuroux, C. Lecht, S. Hacquin, S. Sabot</i>	
<b>SCALING OF THE FREQUENCIES OF THE TYPE ONE EDGE LOCALIZED MODES AND THEIR EFFECT ON TUNGSTEN IN JET ITER-LIKE WALL DISCHARGES</b> .....	721
<i>P. Devynck, N. Fedorczak, O. Meyer</i>	
<b>EROSION OF PLASMA FACING COMPONENTS BY ARCING AT ASDEX UPGRADE</b> .....	725
<i>V. Rohde, M. Balden, R. Neu</i>	
<b>TURBULENT TRANSPORT IN THE DIVERTOR VOLUME: ANALYSIS OF HIGH SPEED IMAGING FROM MAST AND TCV</b> .....	729
<i>N. Walkden, J. Harrison, B. Labit, H. Reimerdes, F. Militello, T. Farley, S. Silburn, A. Kirk</i>	
<b>CORE-SHELL SPHERES FOR ELM TUNING AND QUANTITATIVE IMPURITY PHYSICS</b> .....	733
<i>Z. Wang, J. Hu, S. Li, R. Maingi, Z. Sun, J. Menard, J. Oertel, X. Sun, X. Xu, G. Zuo</i>	
<b>IMPROVEMENT OF THE STOR-M TOKAMAK PLASMA DISCHARGES BY LITHIUM COATING OF THE INNER WALL</b> .....	737
<i>A. Rohollahi, S. Elgriw, J. Adegun, A. Mossman, M. Patterson, C. Xiao, A. Hirose</i>	
<b>MAGNETIC TOPOLOGY AND THE HOMOCLINIC TANGLE OF THE PRIMARY SEPARATRIX IN DIVERTOR TOKAMAKS</b> .....	741
<i>H. Ali, A. Punjabi</i>	
<b>MOLECULAR DYNAMICS STUDY OF MECHANICAL PROPERTIES OF MONOLAYER GRAPHENE SHEET</b> .....	745
<i>C.M. Dela Cruz, M.R. Vasquez Jr., L.T. Bo-ot</i>	
<b>IMPACT OF NON-AXISYMMETRIC MAGNETIC PERTURBATION FIELDS ON PLASMA DENSITY IN THE JET TOKAMAK</b> .....	749
<i>Y. Wei, Y. Liang, L. Zeng, S. Jachmich, J. Cai, H.R. Koslowski</i>	
<b>TOWARDS A HYBRID KINETIC-FLUID DESCRIPTION FOR NEUTRAL PARTICLES FOR EDGE PLASMA CODES</b> .....	753
<i>M. Valentiniuzzi, G. Giorgiani, Y. Marandet, H. Bufferand, G. Ciraolo, P. Tamain, E. Serre, P. Ghendrih</i>	
<b>EFFECTS OF STRONG DENSITY FLUCTUATIONS AT THE PLASMA EDGE ON ECEI MEASUREMENTS AT ASDEX UPGRADE</b> .....	757
<i>B. Vanovac, E. Wolftrum, S. Denk, F. Mink, F. Lagner, G. Birkenmeier, S. Freethy, E. Viezer, M. Dunne, M. Hoelzl, F. Orain, N. Luhmann</i>	
<b>BIFURCATION OF GRAD-SHAFRANOV EQUATION SOLUTIONS</b> .....	761
<i>Y.V. Gott, E.I. Yurchenko</i>	
<b>NON-LINEAR MHD SIMULATIONS OF PELLET TRIGGERED ELM FOR ITER PLASMA SCENARIOS</b> .....	765
<i>S. Fuatani, G. Huijsmans, A. Loarte, M. Mantinen, S. Pamela, L. Garzotti, M. Hoelzl, P. Lang, F. Orain</i>	
<b>STUDY OF SECONDARY INSTABILITY OF 2/1 MAGNETIC ISLAND IN COMPASS HIGH DENSITY LIMIT PLASMAS</b> .....	769
<i>S. Shah, F. Salcedas, J. Havlicek, J. Stöckel, P. Varju, A. Havránek, R. Pánek, C. Silva</i>	
<b>NONLINEAR EVOLUTION OF MULTI-HELICITY NEOCLASSICAL TEARING MODES IN THE HL-2A LOW ROTATION PLASMAS</b> .....	773
<i>X. Ji, Z. Wang, Y. Liu, L. Wei, Y. Xu, D. Yu, Y. Dong, Z. Shi, T. Sun, S. Liang</i>	
<b>MHD ACTIVITY IN HIGH BETA DISCHARGES IN ASDEX UPGRADE</b> .....	777
<i>V. Igoshine, P. Piovesan, A. Bock, L. Giannone, A. Gude, O. Kudlacek, M. Maraschek, L. Marrelli, R. McDermott, M. Reich, W. Sutrop, H. Zohm</i>	
<b>VALIDATION OF THE OHMIC, NEUTRAL BEAM AND BOOTSTRAP CURRENTS IN NON-INDUCTIVE SCENARIOS AT ASDEX UPGRADE</b> .....	781
<i>R. Fischer, A. Bock, E. Fable, L. Giannone, J. Hobirk, P. McCarthy, D. Rittich, J. Stober, G. Tardini, M. Weiland, H. Zohm</i>	
<b>AXISYMMETRIC MODE STABILITY IN TOKAMAK PLASMA WITH FINITE CURRENT DENSITY AT THE SEPARATRIX</b> .....	785
<i>A. Martynov, S. Medvedev</i>	
<b>FOUR SEPARATE DIMENSIONLESS COLLISIONALITY SCANS IN VARIOUS JET SCENARIOS</b> .....	789
<i>T. Tala, H. Nordman, A. Salmi, D. Tegnered, C. Bourdelle, A. Czarnecka, C. Giroud, E. Belonohy, J. Hillesheim, C. Maggi, P. Mantica, M. Maslov, S. Mordick, V. Naulin, J. Rasmussen, G. Sips, H. Weisen</i>	
<b>MODELLING OF RFX-MOD SHAPED TOKAMAK PLASMAS: FROM LOW-<math>\beta</math> PLASMAS TOWARDS H-MODE REGIME</b> .....	793
<i>D. Abate, G. Marchiori, F. Villone</i>	
<b>CAD DATA EXTRACTION TOOL FOR 2D EQUILIBRIUM CALCULATIONS</b> .....	797
<i>M. Telenta, L. Kos, R. Akers, I. Lupelli</i>	
<b>ESTIMATION OF THE RUNAWAY ELECTRON CURRENT DURING THE FLATTOP PHASE IN COMPASS</b> .....	801
<i>E. Macusova, J. Urban, O. Ficker, J. Mlynar, M. Vlacin, R. Paprok, J. Varju, V. Weinzettl, J. Cerovsky, M. Farnik, G. Pokol, V. Plyusnin, J. Havlicek, R. Panek, M. Hron</i>	
<b>EFFECT OF INDUCED SHEARED ROTATION ON PLASMA STABILITY DURING STRONG ECRH IN THE GDT MAGNETIC MIRROR DEVICE</b> .....	805
<i>D. Yakovlev, P. Bagryansky, E. Gospodchikov, Z. Konshin, V. Maximov, V. Prikhodko, V. Savkin, A. Shalashov, E. Soldatkina, A. Solomakhin</i>	
<b>RECENT DEVELOPMENTS AND PHYSICS PROSPECTS FOR ICRH ON W7-X</b> .....	809
<i>J. Ongena, Y.O. Kazakov, V. Borsuk, F. Durodie, D. Hartmann, K.-P. Hollfeld, J. Kallmeyer, F. Louche, A. Messiaen, D. Nicolai, G. Offermanns, B. Schweer, I. Stepanov, M. Vervier, D. Birus, A. Dinklage, J. Faustin, A. Krivska, O. Neubauer, M. Schoor, R. Wolf</i>	
<b>COMPARISON OF NEUTRAL BEAM INJECTION OPTIONS FOR EU DEMO PULSED SCENARIO</b> .....	813
<i>P. Vincenzi, P. Agostinetti, J. Artaud, T. Bolzonella, T. Kurki-Suonio, P. Sonato, J. Varje</i>	
<b>GLOBAL ENERGY CONFINEMENT TIME OF NBI-HEATED PLASMA ON THE COMPASS TOKAMAK</b> .....	817
<i>K. Mitosinkova, J. Havlicek, J. Varju, J. Stockel, J. Seidl, M. Imrisek</i>	
<b>KINETIC STUDY OF PLASMA CURRENT GENERATION UNDER MICROWAVE POWER IN TOKAMAK PLASMAS</b> .....	821
<i>E.J. du Toit, M. O'Brien, R. Vann</i>	
<b>REAL-TIME CONTROL OF NEOCLASSICAL TEARING MODES AND ITS INTEGRATION WITH MULTIPLE CONTROLLERS IN THE TCV TOKAMAK</b> .....	825
<i>M. Kong, O. Sauter, T. Blanken, F. Felici, C. Galperti, T.P. Goodman, D. Hogeweij, D. Kim, S. Kim, B. Maljaars, B. Mavkov, A. Merle, M. Reich, T. Vu</i>	
<b>MODELING CONTROL OF DIVERTED PLASMA OF THE T-15 TOKAMAK</b> .....	829
<i>M. Dubrov, R. Khayrutdinov, V. Lukash, V. Dokuka, M. Sokolov</i>	
<b>IMPLEMENTATION OF PLASMA SIMULATORS AND PLASMA RECONSTRUCTION WORKFLOWS IN ITER'S INTEGRATED MODELLING &amp; ANALYSIS SUITE (IMAS)</b> .....	833
<i>S. Pinches, L. Abadie, L. Appel, J.-F. Artaud, R. Castro, L. Dellen, D. Eester, J. Hollocombe, M. Hosokawa, F. Imbeaux, T. Johnson, R. Khayrutdinov, S. Kim, S. Konovalov, E. Lerche, V. Lukas, I. Lupelli, Y. Makushok, S. Medvedev, D. Muir, A. Polevoi, O. Sauter, M. Schneider, J. Urban</i>	
<b>MERGING COMPRESSION START-UP PREDICTION FOR ST40</b> .....	837
<i>P.F. Buxton, O. Asunta, M.P. Gryaznevich, S. McNamara</i>	
<b>NEOCLASSICAL STUDY OF THE ISOTOPE EFFECT IN DENSITY PEDESTALS</b> .....	841
<i>S. Buller, I. Pusztai, J.T. Omotani, S.L. Newton</i>	
<b>PRELIMINARY INTERPRETATION OF THE ISOTOPE EFFECT ON ENERGY CONFINEMENT IN OHMIC DISCHARGES IN JET-ILW</b> .....	845
<i>E. Delabie, M. Nave, M. Baruzzo, J. Bernardo, J. Boom, J. Buchanan, N. Hawkes, J. Hillesheim, C. Maggi, S. Menmuir, E. Solano, G. Szepesi</i>	
<b>ENHANCED RADIAL VELOCITY AND DAMPING RATE OF GEODESIC ACOUSTIC MODES IN THE PRESENCE OF A TEMPERATURE GRADIENT</b> .....	849
<i>F. Palermo, E. Poli, A. Bottino, A. Biancalani, G. Conway, B. Scott, C. Angioni, F. Zonca</i>	
<b>FUNDAMENTAL PHYSICS OF THE FAST ION STABILIZATION OF ELECTROMAGNETIC ITG TURBULENCE</b> .....	853
<i>G.J. Wilkie, A. Iantchenko, E. Highcock, I. Pusztai, I. Abel, T. Fulop</i>	
<b>TURBULENT STRUCTURES SHAPE IN 3D GLOBAL SIMULATIONS OF EDGE PLASMA TURBULENCE WITH DIVERTOR GEOMETRY</b> .....	857
<i>D. Galassi, P. Tamain, H. Bufferand, G. Ciraolo, N. Fedorczak, E. Serre</i>	
<b>NEW EVIDENCE AND IMPACT OF ELECTRON TRANSPORT NON-LINEARITIES BASED ON NEW PERTURBATIVE INTER-MODULATION ANALYSIS</b> .....	861
<i>M. van Berkel, T. Kobayashi, H. Igami, G. Vandersteen, G. Hogeweij, K. Tanaka, N. Tamura, M. Baar, H. Zwart, S. Kubo, S. Ito, H. Tsuchiya</i>	
<b>RADIAL HEAT PROPAGATION STUDIES USING THE TRANSFER ENTROPY IN TJ-II AND W7-X</b> .....	865
<i>B.P. van Milligen, B.A. Carreras, L. Garcia, C. Hidalgo, M. Hirsch, U. Hoefel, J.H. Nicolau</i>	
<b>QUASILINEAR FLUX-DRIVEN GYROKINETIC LOC-SOC TRANSITION</b> .....	869
<i>C. Bourdelle, F. Casson, J. Citrin, J. Artaud, Y. Camenen, S. Breton</i>	

<b>IMPACT OF ELECTRON SCALE MODES ON ELECTRON HEAT TRANSPORT IN THE JET TOKAMAK</b> .....	873
<i>N. Bonanomi, P. Mantica, T. Goerler, J. Citrin</i>	
<b>EFFECT OF THE IMPURITY INJECTION ON PLASMA CONFINEMENT IN T-10 TOKAMAK</b> .....	877
<i>N.A. Kirneva, K.A. Razumova, V.A. Krupin, G.M. Asadulin, V.M. Bajkov, A.A. Borschegovskij, A.V. Gorshkov, M.M. Dremine, A.M. Kakurin, N.V. Kasjanova, L.A. Klyuchnikov, S.V. Krylov, S.G. Maltsev, T.B. Myalton, G.E. Notkin, A.R. Nemets, Y.D. Pavlov, G.N. Ploskirev, D.V. Ryjakov, D.V. Sarychev, D.S. Sergeev, R.Y. Solomatin, A.V. Sushkov, V.M. Trukhin, E.V. Trukhina</i>	
<b>TURBULENCE MEASUREMENTS WITH THE CORRELATION ELECTRON CYCLOTRON EMISSION (CECE) DIAGNOSTIC IN TCv</b> .....	881
<i>M. Fontana, L. Porte, Z. Huang, S. Coda, O. Sauter, P. Molina</i>	
<b>L-H INTERMEDIATE PHASE AND TYPE III ELMS</b> .....	885
<i>S. Zoletnik, G.H. Hu, B. Tál, G.S. Xu</i>	
<b>MEASUREMENT OF THE TURBULENT PHASE VELOCITY IN THE L-MODE EDGE OF ASDEX UPGRADE AND COMPARISON WITH GEMR SIMULATIONS</b> .....	889
<i>D. Pristazhniuk, P. Manz, T. Happel, G. Conway, A. Krämer-Flecken, U. Stroth</i>	
<b>THE ROLE OF ELMS AND INTER-ELM PHASES IN THE TRANSPORT OF IMPURITIES IN JET</b> .....	893
<i>M. Valisa, C. Angioni, L. Carraro, F.J. Casson, I. Coffey, E. de la Luna, P. Devynk, P. Drewelow, L. Frassinetti, C. Giroud, F. Koechl, M. Leyland, A. Loarte, I. Lupelli, S. Menmuir, M. O'Mullane, V. Parail, A. Patel, M.E. Puiatti, E. Rachlew, F. Rimini, M. Romanelli, F. Sattin, M. Sertoli, E. Stekanikova</i>	
<b>STUDY OF TUNGSTEN TRANSPORT IN OH &amp; ECRH PLASMAS ON THE T-10 TOKAMAK</b> .....	897
<i>I. Zemtsov, V. Krupin, M. Nurgaliev, L. Klyuchnikov, A. Nemets, A. Dnestrovskij, D. Sarychev, V. Lisitsa, V. Shurygin, A. Borschegovskij, S. Grashin, D. Sergeev, A. Sushkov, V. Trukhin, N. Solovov, N. Naumenko, S. Tugarinov</i>	
<b>EXPLORATION OF NEGATIVE TRIANGULARITY DISCHARGES ON DIII-D</b> .....	901
<i>M.E. Austin, A. Marinoni, M.L. Walker, M.W. Brookman, J.S. deGrassie, A.W. Hyatt, G.R. McKee, C.C. Petty, T.L. Rhodes, C. Sung</i>	
<b>CHARACTERIZATION OF THE ELECTRON DENSITY PROFILE DYNAMIC AND FLOW VELOCITY MODULATION DURING OSCILLATIONS CLOSE TO THE L-H THRESHOLD AT COMPASS</b> .....	905
<i>D. Réfy, S. Zoletnik, O. Grover, J. Seidl, M. Hron, D. Dunai, G. Anda, A. Bencze, P. Hacek, J. Krbec, V. Weinzettl</i>	
<b>ENERGY CONFINEMENT TIME STUDY AT THE FT-2 TOKAMAK</b> .....	909
<i>D. Kuprienko, A. Altukhov, L. Esipov, A. Gurchenko, E. Gusakov, M. Kantor, S. Lashkul, S. Leerink, A. Perevalov, G. Troshin</i>	
<b>IMPACT OF FAST PARTICLES AND NONLOCAL EFFECTS ON TURBULENT TRANSPORT IN PLASMAS WITH HOLLOW DENSITY PROFILES</b> .....	913
<i>M. Oberparleiter, F. Eriksson, D. Tegnered, H. Nordman, P. Sirand</i>	
<b>CROSS-PHASE MEASUREMENTS OF TURBULENT DENSITY AND ELECTRON TEMPERATURE FLUCTUATIONS FOR TRANSPORT MODEL VALIDATION IN FUSION PLASMAS</b> .....	917
<i>A. White, S. Freethy, G. Conway, A. Creely, T. Gorler</i>	
<b>LINEAR WAVE PROPAGATION IN ABLATION WAVES DRIVEN BY NONLINEAR HEAT CONDUCTION</b> .....	918
<i>J. Clarisse</i>	
<b>SYNTHETIC DIAGNOSTICS FOR INTERPRETATION OF ICF EXPERIMENTS USING HYDRODYNAMIC SIMULATIONS</b> .....	922
<i>L. Antonelli, S. Atzeni, A. Schiavi</i>	
<b>INTERFEROMETRIC INVESTIGATIONS OF DYNAMICS AND PARAMETERS OF PLASMA CREATED BY TI-SA FEMTOSECOND LASER</b> .....	926
<i>Z. Kalinowska, T. Piszarczyk, T. Chodukowski, M. Rosinski, A. Zaras-Szydłowska, R. Dudzák, J. Dostal, S. Borodziuk</i>	
<b>TRIPLE AND EMISSIVE PROBE MEASUREMENTS OF PLASMA PARAMETERS IN A MAGNETIZED CAPACITIVE COUPLED DISCHARGE</b> .....	930
<i>S. Binwal, J. Joshi, S.K. Karkari, P.K. Kaw, L. Nair, H. Leggate, A. Somers, M. Turner</i>	
<b>EXPERIMENTAL STUDY OF A HIGH-VHF MULTI-ELECTRODE CAPACITIVELY COUPLED PLASMA FOR THIN LAYER SURFACE PROCESSING</b> .....	934
<i>C. Harvey, N. Sirse, C. Gaman, A. Ellingboe</i>	
<b>THRESHOLD POWER OF AMPLITUDE MODULATED LASER BEAM IN COMPLEX PLASMA</b> .....	938
<i>R. Sharma, S. Sharma</i>	
<b>ION CYCLOTRON EMISSION (ICE) DURING ELM CRASHES IN KSTAR TOKAMAK PLASMA RESOLVES LOCAL DENSITY CHANGES ON VERY FAST TIMESCALES</b> .....	942
<i>B. Chapman, R. Dendy, K. McClements, S. Chapman, G. Yun, M. Kim, S. Thatipamula</i>	
<b>INTERMITTENCY IN FAST ION TRANSPORT-REGIMES IN TURBULENT TOROIDAL PLASMAS</b> .....	946
<i>F. Manke, M. Baquero-Ruiz, O. Chellai, A. Fasoli, I. Furno, P. Ricci</i>	
<b>DISSIPATION OF FINE VELOCITY STRUCTURES IN WEAKLY COLLISIONAL PLASMAS</b> .....	950
<i>O. Pezzi, F. Valentini, A. Reda, P. Veltri</i>	
<b>GRADIENT-DRIFT INSTABILITY IN HALL THRUSTERS BASED ON EXPERIMENTAL DATA</b> .....	954
<i>N. Marusov, E. Sorokina, V. Lakhin, V. Ilgisonis</i>	
<b>MODELLING GRAPHENE SHEET GROWTH SUBJECTED TO PLASMA CONTAINING NEGATIVELY CHARGED IONS</b> .....	958
<i>N. Gupta, S.C. Sharma, R. Gupta</i>	
<b>TRANSITION TO DETACHED PLASMA ESTABLISHED BY AMPLIFIED RESONANT MAGNETIC PERTURBATION IN LHD</b> .....	962
<i>Y. Narushima, M. Kobayashi, H. Tanaka, S. Sakakibara, Y. Takemura, K. Watanabe, S. Ohdachi, Y. Sizuiki, S. Masuzaki, N. Ohno, F. Castejon, D. Lopez-Bruna</i>	
<b>OBSERVATIONS OF ION CYCLOTRON EMISSION ON NSTX-U</b> .....	966
<i>E.D. Fredrickson, M.D. Podesta', N.N. Gorelenkov, D. Liu, D.S. Darrow</i>	
<b>GLOBAL CONTROL SYSTEM AND SYNCHRONOUS NATURAL ELMING IN THE ASDEX UPGRADE TOKAMAK</b> .....	970
<i>S.C. Chapman, P.T. Lang, R.O. Dendy, L. Giannone, N.W. Watkins</i>	
<b>COHERENCE IMAGING SPECTROSCOPY SYSTEMS ON WENDELSTEIN 7-X FOR STUDIES OF ISLAND DIVERTOR PLASMA BEHAVIOR</b> .....	974
<i>V. Perseo, R. König, C. Biedermann, O. Ford, D. Gradic, M. Krychowiak, G. Kocsis, D. Ennis, D. Maurer, T.S. Pedersen</i>	
<b>IMPLEMENTATION OF FAST LINE RATIO SPECTROSCOPY ON HELIUM AS PLASMA EDGE DIAGNOSTIC AT ASDEX UPGRADE</b> .....	978
<i>M. Griener, E. Wolfrum, J. Munoz Burgos, O. Schmitz, M. Sochor, I. Cziegler, U. Stroth</i>	
<b>A THIN PROTON RECOIL SPECTROMETER FOR DT NEUTRONS USING ANNULAR SILICON DETECTORS</b> .....	982
<i>B. Marcinkevicius, E. Andersson Sundén, S. Conroy, G. Ericsson, A. Hjalmarsson, M. Weiszflog</i>	
<b>HEAT TRANSPORT ANALYSIS IN HIGH DENSITY NBI PLASMAS OF HELIOTRON J</b> .....	986
<i>X. Lu, S. Kobayashi, R. Seki, K. Watanabe, D. Yu, K. Nagasaki, S. Kado, H. Okada, T. Minami, S. Ohshima, S. Yamamoto, A. Ishizawa, Y. Nakamura, S. Konoshima, T. Mizuuchi</i>	
<b>DEVELOPMENT OF ULTRA-FAST CHARGE EXCHANGE RECOMBINATION SPECTROSCOPY FOR TEMPERATURE AND FLOW VELOCITY FLUCTUATION MEASUREMENTS IN HELIOTRON J</b> .....	990
<i>S. Kobayashi, X. Lu, K. Ida, T. Kobayashi, M. Yoshinuma, S. Kado, S. Ohshima, K. Nagasaki, H. Okada, T. Minami, S. Yamamoto, D. Yu, Y. Nakamura, A. Ishizawa, S. Nishimura, K. Nishioka, S. Konoshima, T. Mizuuchi</i>	
<b>A MODEL-BASED APPROACH FOR FILTERING MAGNETIC PITCH ANGLES OBTAINED BY THE MOTIONAL STARK EFFECT DIAGNOSTIC</b> .....	994
<i>M. Messmer, F. Felici, J.P. Loenen, M. Reich, R.J. Jaspers</i>	
<b>INVESTIGATION OF DEPENDENCE OF LITHIUM AND HYDROGEN COLLECTION BY COLLECTOR TARGET FROM TEMPERATURE OF TARGET SURFACE IN EMITTER-COLLECTOR SYSTEM ON T-11M TOKAMAK</b> .....	998
<i>A. Shcherbak, S. Mirnov, A. Dzhurik, V. Lazarev, Y. Yasina, V. Otroshchenko, A. Vertkov, M. Zharkov, I. Lyublinski</i>	
<b>ION FLOW MEASUREMENTS IN THE VICINITY OF MAGNETIC ISLANDS IN DIII-D</b> .....	1002
<i>C.M. Samuelli, J. Lore, M. Shafer, W. Meyer, S. Allen, J. Howard</i>	
<b>SOLEEDGE2D-EIRENE SIMULATIONS OF WEST H-MODE PLASMAS: DIVERTOR REGIMES AND HEAT DEPOSITION PATTERN</b> .....	1006
<i>G. Ciraolo, H. Bufferand, G. Dose, J. Bucalossi, D. Galassi, Y. Marandet, P. Ghendrih, J. Denis, N. Fedorczak, G. Giorgiani, J. Gunn, E. Serre, P. Tamain</i>	
<b>DIVERTOR HEAT FLUX CHARACTERISATION DURING DETACHMENT EXPERIMENTS IN TCv</b> .....	1010
<i>R. Maurizio, B. Duval, O. Fevrier, J. Harrison, B. Labit, B. Lipschultz, H. Reimerdes, C. Theiler, K. Verhaegh, W. Vijvers</i>	
<b>THE INFLUENCE OF N<sub>2</sub> AND H<sub>2</sub> SEEDING ON DETACHMENT IN A DIVERTOR-RELEVANT PLASMA BY MEANS OF MODELLING AND EXPERIMENTS IN MAGNUM-PSI</b> .....	1014
<i>R. Perillo, G. Akkermans, R. Barrois, I. Classen, W. Vijvers, T. Morgan, H. Eck, W. Lu, M. Baar</i>	
<b>POSITION AND DYNAMICS OF THE EDGE VISIBLE RADIATING BELT AT WENDELSTEIN 7-X</b> .....	1018
<i>T. Szepesi, C. Biedermann, B. Blackwell, S. Bozhenkov, G. Cseh, G. Kocsis, R. Koenig, P. Drews, T. Pedersen, U. Wenzel, S. Zoletnik, F. Effenberg, G. Fuchert, U. Hoefel</i>	
<b>STUDY OF NEAR SOL DECAY LENGTHS IN AUG UNDER ATTACHED AND DETACHED DIVERTOR CONDITIONS</b> .....	1022
<i>H. Sun, E. Wolfrum, B. Kuzan, T. Eich, K. Lackner, A. Scarabosio, O. Kardaun, M. Faisch, S. Potzel, U. Stroth</i>	
<b>IMPACT OF POLOIDAL FLUX EXPANSION ON JET DIVERTOR RADIATION</b> .....	1026
<i>B. Viola, G. Calabro, A. Jaervinen, I. Lupelli, G. Rubino, S. Wiesen, M. Wischmeier</i>	
<b>OBSERVATION OF PLASMA PROCESSES IN SOL REGION OF T-11M TOKAMAK WITH LITHIUM LIMITER AND TARGET-COLLECTOR BY FAST VIDEO REGISTRATION</b> .....	1030
<i>A. Dzhurik, S. Mirnov, A. Shcherbak, V. Lazarev</i>	
<b>PEDESTAL STRUCTURE AND STABILITY IN H AND D ISOTOPE EXPERIMENTS ON JET-ILW</b> .....	1034
<i>L. Horvath, C.F. Maggi, E. Belonohy, E.G. Delabie, J. Flanagan, L. Frassinetti, C. Giroud, D. Keeling, D. King, M. Maslov, G.F. Matthews, S. Menmuir, S. Saarelma, S.A. Silburn, G. Sips, H. Weisen, K.J. Gibson</i>	
<b>RE BEAM GENERATION IN MGI DISRUPTIONS ON COMPASS</b> .....	1038
<i>O. Ficker, J. Mlynar, E. Macusova, M. Vlacin, V. Weinzettl, J. Urban, J. Cerovsky, M. Farnik, T. Markovic, R. Paprok, P. Vondracek, M. Imrisek, M. Tomes, J. Havlicek, J. Varju, M. Varavin, O. Bogar, A. Havranek, M. Gospodarczyk, M. Rabinski, M. Jakubowski, K. Malinowski, J. Zebrowski, V. Plyusnin, G. Papp, R. Panek, M. Hron</i>	
<b>FULL SUPPRESSION OF EDGE LOCALISED MODES WITH NON-AXISYMMETRIC MAGNETIC PERTURBATIONS AT LOW PLASMA EDGE COLLISIONALITY IN ASDEX UPGRADE</b> .....	1042
<i>W.A. Sutrop, A. Kirk, R. Nazikian, W. Bobkov, M. Cavedon, M. Dunne, N. Leuthold, L. Yueqiang, R.M. McDermott, H. Meyer, T. Odstrcil, D.A. Ryan, M. Valovic, E. Viezzer, M. Willensdorfer</i>	
<b>MAGNETIC FLUX CONVERSION AND THE IMPORTANCE OF TEARING MODES IN THE DIII-D ADVANCED INDUCTIVE SCENARIO</b> .....	1046
<i>N.Z. Taylor, T. Luce, R. Haye, C. Petty</i>	
<b>EFFECT OF SAWTEETH ON FAST IONS IN MAST</b> .....	1050
<i>A. Sperduti, M. Cecconello</i>	
<b>RUNAWAY ELECTRON SYNCHROTRON SPECTRA IN FTU</b> .....	1054
<i>Z. Popovic, B. Esposito, P. Buratti, F. Causa, M. Gospodarczyk, D. Carnevale, R. de Angelis, J. Martin Solis, V. Piergotti, G. Rocchi</i>	
<b>COMPARING DIAMAGNETIC FLUX MEASUREMENTS AND MODELLING ON ASDEX UPGRADE</b> .....	1058
<i>L. Giannone, R. Fischer, B. Geiger, D. Rittich, A. Bock, J. Fuchs, A. Gude, M. Maraschek, P. McCarthy, W. Sutrop, K. Schuhbeck</i>	
<b>EXPERIMENTAL INVESTIGATIONS ON PLASMA DISRUPTIONS IN THE KSTAR TOKAMAK</b> .....	1062
<i>J. Bak, H. Kim, S. Hahn, H. Han, J. Kim, I. Choi</i>	

<b>ROLE OF THE SCRAPE-OFF LAYER IN THE TYPE I ELM DYNAMICS IN AUG AND TCV</b> .....	1066
<i>L. Frassinetti, M. Dunne, U. Sheikh, F. Orain, M. Bernerdt, G. Birkenmeier, P. Blanchard, D. Carralero, M. Cavedon, S. Coda, R. Fischer, M. Hoelzl, F. Lagner, R. Mc Dermott, H. Meyer, A. Merle, C. Theiler, K. Verhaegh, E. Viezzer, E. Wolfrum</i>	
<b>LOCAL AND INTEGRAL DISRUPTION FORCES IN TOKAMAKS</b> .....	1070
<i>V.D. Pustovitov, D.I. Kiramov</i>	
<b>INVESTIGATION OF SATURATED ELM PRECURSORS ON THE KSTAR TOKAMAK</b> .....	1074
<i>L.V. Zsuga, S. Zoletnik, J. Lee, G. Yun</i>	
<b>SIMULATION STUDY ON RESISTIVE INSTABILITIES IN A SMALL ASPECT RATIO REVERSED FIELD PINCH</b> .....	1078
<i>Y. Nagamine, M. Aizawa</i>	
<b>TEARING MODE SEEDING BY EXTERNALLY PROVIDED RESONANT MAGNETIC PERTURBATIONS</b> .....	1082
<i>D. Meshcheriakov, V. Igochine, S. Fietz, M. Hoelzl, F. Orain, H. Zohm, S. Guenter, K. Lackner</i>	
<b>NUMERICAL TOKAMAK EQUILIBRIA WITH PRESSURE ANISOTROPY</b> .....	1086
<i>G. Poulipoulis, G. Throumoulopoulos</i>	
<b>PHYSICS OF NEUTRAL GAS JET INTERACTION WITH MAGNETIZED PLASMAS</b> .....	1090
<i>Z. Wang, M. Xu, P. Diamond, X. Duan, Y. Shi, D. Yu, Y. Zhou, L. Nie, R. Ke, W. Zhong, Z. Shi, A. Sun, J. Li, L. Yao</i>	
<b>HELIUM OPERATION OF ISHTAR IN PREPARATION OF E-FIELD MEASUREMENTS</b> .....	1094
<i>K. Crombe, A. Kostic, A. Nikiforov, R. D'Inca, E. Faudot, S. Heurax, J. Jacquot, F. Louche, E. Martin, J. Noterdaeme, R. Ochoikov, I. Shesterikov, M. Usovceva, D. Van Eester</i>	
<b>MODELLING ION CYCLOTRON EMISSION FROM BEAM-INJECTED IONS IN MAGNETIC CONFINEMENT FUSION PLASMAS</b> .....	1098
<i>R. Dendy, B. Reman, T. Akiyama, S. Chapman, J. Cook, H. Igami, S. Inagaki, K. Saito, G. Yun</i>	
<b>INVESTIGATION OF SUPRATHERMAL ELECTRON DYNAMICS WITH ECCD IN THE TCV TOKAMAK</b> .....	1102
<i>D. Choi, S. Coda, J. Decker</i>	
<b>NEUTRAL BEAM INJECTION AT ASDEX UPGRADE: TRANSMISSION AND BEAMLINE LOSSES</b> .....	1106
<i>N. den Harder, D. Rütich, G. Orozco, C. Hopf</i>	
<b>DEVELOPMENT OF A REACTOR RELEVANT HIGH DENSITY HIGH CONFINEMENT SCENARIO AT ASDEX UPGRADE</b> .....	1110
<i>P.T. Lang, V. Bobkov, M. Dunne, A. Kallenbach, O. Kardaun, R. McDermott, A. Mlynek, V. Mertens, S. Poizel, B. Ploeckl, J.K. Sober, E. Wolfrum, H. Zohm</i>	
<b>HIGH POWER BASELINE H-MODE DEUTERIUM PLASMAS WITH ION TEMPERATURE EXCEEDING THE ELECTRON TEMPERATURE IN JET-ILW</b> .....	1114
<i>H. Kim, C. Challis, A. Sips, F. Rimini, L. Garzotti, E. Lerche, L. Frassinetti, M. Beurskens, X. Yuan, S. Kaye</i>	
<b>SYNTHETIC SYNCHROTRON DIAGNOSTICS FOR RUNAWAY ELECTRONS</b> .....	1118
<i>M. Hoppe, O. Embréus, A. Tinguely, R. Granetz, T. Fülöp</i>	
<b>5MA/1.8T HELIUM H-MODE ITER SCENARIO WITH INCREASED OUTBOARD PLASMA-WALL GAP</b> .....	1122
<i>V. Lukash, A. Kavin, Y. Gribov, M. Dubrov, R. Khayrutdinov, A. Loarte</i>	
<b>HEATING SCENARIOS FOR THE NEW STAGED-APPROACH OF THE ITER RESEARCH PLAN</b> .....	1126
<i>M. Schneider, J. Artaud, D. Boisson, D. Campbell, Y. Gribov, M. Henderson, Y. Kazakov, S. Kim, P. Lamalle, E. Lerche, A. Loarte, S. Pinches, A. Polevoi, J. Snipes, D. van Eester</i>	
<b>FUSION RESEARCH PROGRESS AND PLANS ON DIII-D</b> .....	1130
<i>R.J. Buttery</i>	
<b>SPHERICAL TOKAMAK GLOBUS-M2 - STATUS AND SCIENTIFIC PLANS</b> .....	1134
<i>M. Patrov, N. Bakharev, F. Chernyshev, A. Dudkovskaya, V. Dyachenko, V. Gusev, A. Kavin, A. Kononov, G. Kurskiev, S. Khitrov, N. Khromov, E. Kiselev, V. Minaev, A. Mineev, I. Miroshnikov, A. Novokhatskiy, Y. Petrov, N. Sakharov, P. Shchegolev, A. Sladkomedova, V. Solokha, V. Tokarev, A. Telnova, S. Tolstyakov, V. Varfolomeev</i>	
<b>ADAPTIVE CONTROL DESIGN AND ENERGY DISTRIBUTION ESTIMATION VIA NONLINEAR OBSERVER FOR RUNAWAY ELECTRON IN FTU</b> .....	1138
<i>G. Ferrò, F. Bagnato, W. Bin, L. Boncagni, F. Bombarda, P. Buratti, D. Carnevale, F. Causa, F. Cordella, B. Esposito, M. Gospodarczyk, A. Gabrielli, T. Fulop, S. Galeani, A. Grosso, A. Lier, F. Martinelli, J.M. Solis, J. Mlynar, L. Panaccione, G. Papp, M. Passeri, Z. Popovic, C. Possieri, G. Pucella, G. Ramogida, A. Romano, M. Sassano, A. Stahl, B. Tilia, O. Tudisco</i>	
<b>POST-ABLATION EVOLUTION OF THE TUNGSTEN VUV/XUV SPECTRA IN JET</b> .....	1142
<i>E. Pawelec, S.S. Henderson, M. o'Mullane, E.R. Solano, A. Huber, A. Baciero, J. Boom, I. Coffey, J. Flanagan, S. Jachmich, K.D. Lawson, M. Maslov, L. Meneses, S. Menmuir, T. Puetterich, S. Schmuck, G. Sergienko, M. Stamp, H. Summers</i>	
<b>THE INFLUENCE OF BLOB INTERMITTENCY ON FUELLING</b> .....	1146
<i>A.S. Thrysoe, J. Madsen, V. Naulin, A.H. Nielsen, J. Juul Rasmussen</i>	
<b>CORE INTRINSIC TOROIDAL ROTATION MECHANISMS TESTED AGAINST ASDEX UPGRADE OBSERVATIONS</b> .....	1150
<i>W.A. Hornsby, C. Angioni, E. Fable, R. McDermott, P. Manas, A. Peeters</i>	
<b>FIRST MULTI-CHANNEL CORE TRANSPORT SIMULATIONS WITH RAPTOR USING A NEURAL NETWORK TRANSPORT MODEL</b> .....	1154
<i>J. Citrin, F. Felici, A. Teplukhina, C. Bourdelle, S. Breton, Y. Camenen, F. Imbeaux, J. Redondo, O. Sauter</i>	
<b>L-H TRANSITION STUDIES IN HYDROGEN AND MIXED ION SPECIES PLASMAS IN JET</b> .....	1158
<i>J.C. Hillesheim, E. Delabie, E. Solano, I. Carvalho, A. Drenik, C. Giroud, A. Huber, E. Lerche, B. Lomanowski, M. Manisinen, I. Nunes, F. Rimini, P. Vincenzi, E. Belonohy, C. Challis, M. Gelfusa, J. Hobirk, H. Kim, C. Maggi, S. Menmuir, S. Newton, E. Peluso, M. Stamp, G. Verdoolaege</i>	
<b>ON FLUID MODELING OF ION TEMPERATURE GRADIENT (ITG) DRIVEN MODES</b> .....	1162
<i>J. Zielinski, A. Smolyakov, P. Beyer, M. Becoulet, G. Huijsmans, X. Garbet, S. Benkadda</i>	
<b>STATUS OF GOL-NB PROJECT</b> .....	1166
<i>V.V. Postupaev, V.I. Batkin, A.D. Beklemishev, A.V. Burdakov, V.S. Burmasov, I.S. Chernoshanov, A.I. Gorbovsky, I.A. Ivanov, K.N. Kuklin, K.I. Mekler, S.V. Polosatkin, A.F. Rovenskikh, E.N. Sidorov</i>	
<b>EVIDENCE OF ZONAL FLOWS TRIGGERING THE L-H TRANSITION AND ROLE OF ISOTOPE MASS IN THE TJII STELLARATOR</b> .....	1170
<i>U. Losada Rodríguez, T. Estrada García, C. Jun, B. Liu, B.P. van Milligen, C. Hidalgo Vera, J. Alonso de Pablo, C. Silva</i>	
<b>INVESTIGATION OF IMPURITY CONFINEMENT AND TRANSPORT UNDER DIFFERENT ECRH POWER CONDITIONS IN PLASMAS OF THE TJ-II STELLARATOR</b> .....	1174
<i>B. Lopez-Miranda, B. Zurro, E.M. Hollmann, A. Baciero, M.A. Ochando, F. Medina, K.J. McCarthy, I. Pastor</i>	
<b>PARTICLE-IN-CELL SIMULATION OF PARALLEL BLOB DYNAMICS IN NEAR SCRAPE-OFF-LAYER PLASMA OF MEDIUM-SIZE TOKAMAK</b> .....	1178
<i>S. Costea, D. Tshhakaya, J. Kovacic, T. Gyergyek, R. Schrittwieser, C. Ionita, B.S. Schneider</i>	
<b>LOW-Z IMPURITY TRANSPORT STUDIES USING CXRS AT ASDEX UPGRADE</b> .....	1182
<i>C. Bruhn, R. McDermott, A. Lebschy, R. Dux, C. Angioni, P. Manas, J. Ameres, A. Kappatou, V. Bobkov, R. Ochoikov, M. Cavedon, T. Puetterich, E. Viezzer</i>	
<b>IMPLEMENTATION OF MULTIPLE SPECIES COLLISIONAL OPERATOR IN GYRO-KINETIC CODE GS2</b> .....	1186
<i>A. Mauriya, M. Barnes, M.F. Nave, F. Parra</i>	
<b>DENSITY AND MAGNETIC FLUCTUATIONS AT JET: EXPERIMENTAL OBSERVATION AND NUMERICAL CHARACTERIZATION</b> .....	1190
<i>G. De Masi, I. Predebon, S. Spagnolo, I. Lupelli, J. Hillesheim, L. Meneses, E. Delabie, C. Maggi</i>	
<b>APPLYING NEURAL NETWORKS FOR TOKAMAK PLASMA TURBULENCE PREDICTIONS</b> .....	1194
<i>A. Ho, J. Citrin, C. Bourdelle, Y. Camenen, F. Felici, M. Maslov, K. Plassche, H. Weisen</i>	
<b>EVALUATION OF FAST PARTICLE TRANSPORT FOR QUASI-SYMMETRICAL MAGNETIC FIELDS</b> .....	1198
<i>A. Gogoleva, V. Tribaldos</i>	
<b>REDUCTION OF TURBULENCE AND TRANSPORT IN THE ALCATOR C-MOD TOKAMAK BY DILUTION OF DEUTERIUM IONS WITH NITROGEN AND NEON INJECTION</b> .....	1202
<i>M. Porkolab, P.C. Ennever, S.G. Baek, E. Edlund, J.W. Hughes, J. Rice, J.C. Rost, G. Staebler, J. Candy, M.L. Reinke</i>	
<b>BICOHERENCE ANALYSIS OF FAST ION DRIVEN TRANSIENT PLASMA WAVES</b> .....	1206
<i>P.Z. Poloskei, G. Papp, G.I. Pokol, P.W. Lauber, X. Wang, L. Horvath</i>	
<b>ON THE INTERPRETATION OF PERTURBATIVE MOMENTUM TRANSPORT STUDIES</b> .....	1210
<i>Y. Camenen, R.M. McDermott, A. Salmi, T. Tala</i>	
<b>A HYBRID VLASOV FOKKER-PLANCK CODE FOR LABORATORY ASTROPHYSICS APPLICATIONS</b> .....	1214
<i>Q. Xia, P. McGinn, B. Reville</i>	
<b>STRONG ELECTROMAGNETIC PULSES GENERATED IN HIGH-INTENSITY FS LASER INTERACTION WITH THIN FOIL TARGETS</b> .....	1218
<i>P. Raczka, J. Dubois, S. Hulín, V. Tikhonchuk, M. Rosinski, A. Zaras-Szydłowska, J. Badziak</i>	
<b>COMPLEX INTERFEROMETRY APPLICATION FOR SPONTANEOUS MAGNETIC FIELD DETERMINATION IN LASER-PRODUCED PLASMA</b> .....	1222
<i>A. Zaras-Szydłowska, T. Pisarczyk, T. Chodukowski, Z. Kalinowska, R. Dudzak, J. Dostal, S. Borodziuk</i>	
<b>RELATIVISTIC POSITRON BEAM GENERATION BY 10 PW LASER</b> .....	1226
<i>Y. Gu, O. Klimo, S. Weber, G. Korn</i>	
<b>LASER ABSORPTION AND ION ACCELERATION UNDER TIGHT-FOCUSING CONDITIONS</b> .....	1230
<i>O. Klimo, P. Valenta, S. Weber</i>	
<b>SIMULATIONS OF ULTRA-RELATIVISTIC HIGH HARMONIC GENERATION FROM A SOLID TARGET USING REDUCED MASS IONS</b> .....	1234
<i>N.G. Millington, M. Borghesi, B. Reville, M. Geissler</i>	
<b>LASER INDUCED FLUORESCENCE MEASUREMENTS OF ION DENSITY DISTRIBUTION ON PS-1 DEVICE</b> .....	1238
<i>D.S. Kuznetsov, I. Moskalenko, N. Molodtsov, D. Shcheglov, V. Zhil'tsov, E. Bragin, S. Yanchenkov</i>	
<b>APPLICATIONS OF HYBRID COMPUTER MODELS IN PLASMA SHEATH PHYSICS</b> .....	1242
<i>J. Hromadka, T. Ibehej, R. Hrach</i>	
<b>SPECTROSCOPIC ANALYSIS OF SHOCK LAYER FLOWS IN A HIGH ENTHALPY ARCJET FACILITY</b> .....	1246
<i>G. Yamada, S. Yanai, M. Nakanishi, H. Katsurayama, T. Sakai, H. Kawazoe</i>	
<b>DEVELOPMENT OF EFFICIENT SWITCHING CONVERTERS, BASED ON CS-BA PLASMA</b> .....	1250
<i>A. Grabovskiy, A. Mustafaev, O. Murillo, V. Soukhomlinov, V. Kuznetsov</i>	
<b>EFFECT OF MONOENERGETIC ELECTRONS ON ELECTRONEGATIVE DUSTY PLASMA</b> .....	1254
<i>C. Samir, A. Tahraoui, D. Benlamdjaldi, B. Zaham</i>	
<b>PONDEROMOTIVE FORCE IN A TRAVELLING WAVE</b> .....	1258
<i>R.A. Cairns, D. Burton, B. Ersfeld, A. Noble, S. Yoffe, D. Jaroszynski</i>	
<b>MODULATIONAL INSTABILITY OF LANGMUIR WAVEPACKETS IN COLLISIONAL PLASMAS</b> .....	1262
<i>J.B. Cook, I. Elkamash, I. Kourakis</i>	
<b>TRANSPORT PROPERTIES OF THE FULLY IONIZED PLASMA IN THE FIRST BORN APPROXIMATION OF THE LINEAR RESPONSE THEORY</b> .....	1266
<i>V.S. Karakhatov</i>	
<b>DISCRETE-PARTICLE EFFECTS ON LANDAU DAMPING IN PARTICLE-IN-CELL SIMULATIONS</b> .....	1270
<i>S. Chen, G. Wu, P. Lai, Y. Linliu</i>	
<b>HYBRID SIMULATIONS OF SHOCKS IN WEAKLY COLLISIONAL SYSTEMS</b> .....	1274
<i>P. McGinn, Q. Xia, B. Reville</i>	
<b>INFLUENCE OF ENVIRONMENTAL PARAMETERS ON THE KELVIN-HELMHOLTZ INSTABILITY AT THE MAGNETOPAUSE</b> .....	1278
<i>M.H. Leroy, R. Keppens</i>	
<b>INDIRECT MEASUREMENTS OF SLOW MODES IN THE HERMEAN MAGNETOSPHERE</b> .....	1282
<i>J. Varela, F. Paniellini</i>	

**THE MICROWAVE ANOMALOUS ABSORPTION IN PLASMA DUE TO THE TWO-UPPER-HYBRID-  
PLASMON PARAMETRIC DECAY INSTABILITY** ..... 1286

*A. Popov, A. Altukhov, V. Arkhipenko, A. Gurchenko, E. Gusakov, L. Simonchik, E. Sysoeva, M. Usachonak*

**Author Index**