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- DP16** Direct energy conversion and control of unstable burn by cyclic major radius compression and decompression
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Max-Planck-Institut für Plasmaphysik, Federal Republic of Germany
- DP17** The influence of plasma edge effects and of impurities on the thermal stability of a tokamak reactor
B K Bein
Uni-Center, D-4630 Bochum, Federal Republic of Germany
- DP18** Kinetic theory of neutrals in a bounded plasma slab with inhomogeneous ion temperature and density
M Tendler
Institute of Technology, Uppsala University, Sweden
- DP19** Fusion reactors through efficient energy conversion
A Hertzberg, J Dawson* and P Rose†
University of Washington, USA
*University of California, USA
†Mathematical Sciences Northwest, Inc. USA
- DP20** Thermal fluctuations and leaking radiation from laser-produced plasma
S Vukovic, Yu M Aliev*, O M Gradov*, A Yu Kyrie* and A A Frolov*
Institute of Physics, Beograd, Yugoslavia
*Lebedev Physical Institute, USSR Academy of Sciences, Moscow, USSR
- DP21** The wavelength dependence of energy absorption in laser-plasmas
H Schwarz
Rensselaer Polytechnic Institute, Troy, New York, USA and Departamento de Fisica, Universidade de Brasilia, Brazil
- DP22** Investigation of laser-produced plasmas in the SM magnetic trap
J Baranowski, S Chyrczakowski, K Melzacki, M Sadowski, E Skladnik-Sadowska, A S Slavnij and S Ugniewski
Institute of Nuclear Research, Otwock-Swierk, Poland

- DP23** Interaction of short 1.06 μm laser pulses with low-z plasma
J E Balmer, P Ladrach, A P Schwarzenbach, T P Donaldson and H P Weber
Institute of Applied Physics, University of Berne, Sidlerstrasse, Bern
- DP24** A time-dependent study of linear collective ion acceleration
A Sternlieb
Department of Physics and Astronomy, University of Maryland, USA
- DP25** X-ray spectrometry of laser compressed microballoons
J G Lunney, M H Key*, J D Kilkenny†, R W Lee†, C L S Lewis and A Moore
Department of Pure and Applied Physics, Queen's University of Belfast
*Rutherford Laboratory, Oxon
†Imperial College, London
- DP26** Transition from isentropic to isothermal expansion in laser-produced plasmas
A Barrero and J R Sanmartin
Escuela Tecnica Superior de Ingenieros Aeronauticos Universidad Politecnica de Madrid, Spain
- DP27** Characterization techniques for high quality ICF targets
B W Weinstein and C D Hendricks
University of California, Lawrence Livermore Laboratory, USA
- DP28** Axial variation of the energy transfer from an intense relativistic electron beam to a plasma
A E Dangor, A K L Dymoke-Bradshaw, G S Kerslick and P Šunka
Blackett Laboratory, Imperial College, London
- DP29** Application of intense relativistic electron beams to steady state tokamaks
V Bailey, J Benford and H Helava
Physics International Company, San Leandro, California, USA
- DP30** A numerical study on wave shaping in REB diodes
S Sinman and A Sinman*
Middle East Technical University, Plasma Engineering Laboratory, Ankara, Turkey
*Ankara Nuclear Research and Training Center, Electron Physics Laboratory, Ankara, Turkey
- DP31** Formation of a reversed-field configuration with a rotating relativistic electron beam
J D Sethian, K A Gerber, D N Spector and A E Robson
Naval Research Laboratory, Washington, D.C., USA
- DP32** Velocity angle scattering of a relativistic electron beam during transport through a plasma
P H de Haan, H J Hopman, G A M Janssen, E H A Granneman, R Jayakumar*, P S Strelkov† and B Jurgens
FOM-Institute for Atomic and Molecular Physics, Amsterdam, The Netherlands
- DP34** The model investigation of the quasispherical liner compression of toroidal plasma
V M Goloviznin, R H Kurtmullaev, V N Semenov, V A Gasilov*, A P Favorsky*, M Yu Shashkov*, N A Sosnin†
I V Kurchatov Institute of Atomic Energy, Moscow, USSR
*M V Keldysh Institute of Applied Mathematics, Ac. Sci., Moscow, USSR
†M V Lomonosov Moscow State University, Moscow, USSR
- DP35** Build-up of antiparallel structure and its stability in systems with magnetic barrier
A G Es'kov, A G Kalygin, R Kh Kurtmullaev, A I Malutin, A P Proshletsov and V N Semenov
Kurchatov Institute of Atomic Energy, Moscow, USSR
- DP36** Paramagnetic spheromak formation in a combined zee and theta pinch
G C Goldenbaum, J H Irby, Y P Chong and G Hart
Department of Physics and Astronomy, University of Maryland, USA

Inertial confinement

- E1.1** Computational study of laser implosion and comparison with experimental results at ILE Osaka
T Yabe, K Nishihara, K Mirma, N Miyanaga, Y Kato and C Yamanaka
Institute of Laser Engineering, Osaka University, Osaka, Japan

- E1.2** Laser fusion experiments at KMSF
R R Johnson, R L Berger, P M Campbell, G Charatis, J G Downward, T M Henderson, F J Mayer, N K Moncur, D L Musinski, L V Powers, S B Segall, L D Siebert, D C Slater, D E Solomon, J A Tarvin and C E Thomas
KMS Fusion Inc., Michigan, Ann Arbor, USA
- E1.3** Energy transport from 1.06 μm and 0.53 μm laser plasmas interactions at $10^{15} \text{ W cm}^{-2}$
J D Kilkenny, D J Bond, D R Gray, J D Hares, R G Evans*, M Key*, W Toner* and J G Lunney†
Blackett Laboratory, Imperial College, London
**Rutherford Laboratory*
†*Queen's University, Belfast*
- E1.4** Acceleration of thin foil targets under intense laser irradiation
G Brederlow, R Brodmann, K Eidmann, P Mulser, R Petsch, R Sigel, G Spindler, G Tsakiris, R Volk and S Witkowski
Projektgruppe für Laserforschung der Max-Planck-Gesellschaft zur Förderung der Wissenschaften e.V., Garching, Federal Republic of Germany
- E1.5** Studies of laser driven implosions by time-resolved shadowgraphy
C L S Lewis, L Cooke, J G Lunney, A Moore, J M Ward, R G Evans*, M H Key* and T A Hall†
The Queen's University of Belfast
**Rutherford Laboratory*
†*Essex University*
- E1.6** Laser-matter interaction and implosion studies at Limeil Research Centre
A Bekiarian, A Bernard, E Buresi, R Daustray, M Decroisette, F Delobbeau, P Guillaneux, J M Reisse, B Sitt, J M Vedel and J P Watteau
Centre d'Etudes de Limeil, France
- E1.7** Recent high density inertial fusion results from the Shiva facility
E K Storm, H G Ahlstrom, J A Glaze, K R Manes and J H Nuckolls
University of California, Lawrence Livermore Laboratory, USA
- E1.8** Plasma heating by the amplifier module radiation in thermonuclear installation "Delfin"
N G Basov, Yu A Mikhailov, G V Sklizkov and S I Fedotov
P N Lebedev Physical Institute of Academy of Sciences of the USSR, Moscow, USSR

Plasma heating

- E2.1** Nonresonant decay of lower hybrid waves
M Brambilla, B Liberman*, S S Pesic and D Moreau
Association Euratom-CEA, Grenoble, France
**Instituto de Fisica, Porto Alegre-rs-Bresil*
- E2.2** The distortion of the thermal ion distribution by neutral injection heating
J G Cordey, M Cox and E Bittoni*
Culham Laboratory, Abingdon, Oxon.
**CNEN Centro Calcola (Bologna)*
- E2.3** Ion-ion hybrid resonance damping and heating in the Erasmus tokamak
V P Bhatnagar, G Bosia, M Calderon, I Darius, E Desoppere, R Koch, A M Messiaen, D Pearson, Cl Piret, G Telesca, P E Vandenplas, G van Oost and R R Weynants
Laboratoire de Physique des Plasmas, Ecole Royale Militaire, Brussels
- E2.4** The accessibility of the resonant surfaces and the role of surface waves in RF plasma heating
Ernesto Canobbio
Department of Physics, University of California, USA and Association Euratom-CEA, Grenoble, France
- E2.5** Characterization of high power neutral beams by optical diagnostics
J F Bonnal, G Bracco, C Breton, J P Bussac, C de Michelis, J Drauax, M Mittioli, R Oberson and J Ramette
Association Euratom-CEA sur la Fusion, Fontenay-aux-Roses, France

Tokamak experiments, tokamak theory

- EP1** Microtearing modes and anomalous transport in tokamaks
J F Drake, N T Gladd, C S Liu and C L Chang
Department of Physics and Astronomy, University of Maryland, Maryland, USA
- EP3** Experiments on high-beta tokamak stability
P G Weber, T C Marshall and R A Gross
Columbia University, New York, USA
- EP4** Influence of q on stability and confinement in the Garching belt-pinch IIa
G Becker and O Gruber
Max-Planck-Institut für Plasmaphysik, Garching, Federal Republic of Germany
- EP5** Limitation of the electron density in the pulsator tokamak
G Fußmann, O Klüber, W Engelhardt, J Gernhardt, E Glock, S V Goeler*, F Karger, N Gottardi, K Lackner, G Lisitano, H M Mayer, D Meisel, H Murmann, S Sesnic, F Wagner and H P Zehrfeld
Max-Planck-Institut für Plasmaphysik, Garching, Federal Republic of Germany
**Plasma Physics Laboratory, Princeton University, USA*
- EP6** Tokamak discharges with AC modulation
S von Goeler, J Gernhardt, F Pohl, W Engelhardt and H Murmann
Max-Planck-Institut für Plasmaphysik, Garching, Federal Republic of Germany
- EP7** Schlieren measurements of plasma cinematics during current disruptions in tokamaks
G Lisitano
Institut für Plasmaphysik, Euratom-IPP Assoc., Garching, Federal Republic of Germany
- EP8** Results from the DITE bundle divertor
S J Fielding, J W M Paul and A J Wootton
Culham Laboratory, Abingdon, Oxon.
- EP9** Neutral injection heating in DITE
R D Gill, K B Axon, G A Baxter, W H M Clark, R S Hemsworth, J Hugill, J W M Paul, J B B Percival, R Prentice, B A Powell and A A Mirin*
Culham Laboratory, Abingdon, Oxon.
**Lawrence Livermore Laboratory, USA*
- EP11** Low-q discharges in DITE tokamak
J Hugill, A J Wootton, K B Axon, B A Powell, R Prentice, D D R Summers and C M Wilson
Culham Laboratory, Abingdon, Oxon.
- EP12** Measurements of electron cyclotron emission on T.10
A A Bagdasarov†, W H M Clark, A E Costley*, E P Gorbunov† and G F Neill*
Culham Laboratory, Abingdon, Oxon.
**The National Physical Laboratory, Teddington, Middlesex*
†I V Kurchatov Institute of Atomic Energy, USSR
- EP13** Polarization and millisecond spectral measurements of electron cyclotron emission from DITE tokamak
D J Campbell*, W H M Clark, A E Costley*, P J Fielding, D C Robinson†, G D Tait†† and B Walker*
Culham Laboratory, Abingdon, Oxon.
**The National Physical Laboratory, Teddington, Middlesex*
†University of Sydney, Sydney, Australia
††University of Maryland, Maryland, USA
- EP15** D_{α} spectral profile measurements on TFR plasmas
TFR Group, presented by P Platz
Association Euratom-CEA sur la Fusion, Fontenay-aux-Roses, France
- EP16** Nonlinear phenomena by the tokamak helical mode evolution
N V Ivanov and A M Kakurin
I V Kurchatov Institute of Atomic Energy, Moscow, USSR
- EP17** Ballooning stable profiles in circular tokamaks
D Lortz and J Nührenberg
Max-Planck-Institut für Plasmaphysik, Garching, Federal Republic of Germany

- EP18** Ripple loss of fast ions in a large tokamak
K Tani, H Kishimoto and S Tamura
Japan Atomic Energy Research Institute, Tokai, Japan
- EP19** Numerical study of the internal kink mode in tokamaks
W Kerner, R Gruber* and F Troyon*
Max-Planck-Institut für Plasmaphysik, Garching, Federal Republic of Germany
**CRPP-EPFL, Lausanne, Switzerland*
- EP20** Electric field and slowing down effects on relativistic charged particle motion in tokamaks
H P Zehrfeld, G Fußmann and B J Green*
Institut für Plasmaphysik, Euratom-IPP Association, Garching, Federal Republic of Germany
**JET Joint Undertaking, Abingdon, Oxon.*
- EP21** Control of the radial position of a tokamak plasma in the current rise phase
B J Green, M R Perrone*, P Noll and P Dokopoulos†
JET Joint Undertaking, Abingdon, Oxon
**Universita degli Studi di Lecce, Italy*
†University of Salonika, Greece
- EP22** A stable route to the high β_p regime
A Sykes and M F Turner
Culham Laboratory
- EP23** Pellet refuelling of a divertor tokamak
L Jørgensen and P E Stott
Culham Laboratory
- EP24** Nonlinear theory of collisional drift-waves in toroidal geometry and anomalous skin effects in tokamaks
A Rogister and G Hasselberg
Institut für Plasmaphysik der Kernforschungsanlage Julich, Federal Republic of Germany
- EP25** Transport calculations for the approach to ignition in JET
M L Watkins and A Gibson
JET Joint Undertaking, Abingdon Oxon
- EP26** The loss of injected ions due to spatial field ripple in tokamaks
J G Gordey, W G F Core* and A Gibson*
Culham Laboratory
**JET Joint Undertaking, Abingdon, Oxon*
- EP27** A multi-region global transport model for tokamaks
W G F Core and T E Stringer
JET Joint Undertaking, Abingdon, Oxon
- EP28** Beam-induced currents in toroidal plasmas
D F H Start, J G Cordey and E M Jones
Culham Laboratory
- EP29** Effect of lower hybrid wave turbulence on tearing mode instability
A K Sundaram and A Sen
Physical Research Laboratory, Ahmedabad, India
- EP30** Numerical study of the ideal MHD stability of spheromaks
P Gautier, R Gruber, F Troyon, W Kerner*, and W Schneider*
Centre de Recherches en Physique des Plasmas, Lausanne, Switzerland
**Max-Planck-Institut für Plasmaphysik, Garching, Federal Republic of Germany*
- EP31** Studies of resonant absorption of Alfvén waves by means of an evolution code
B Balet, K Appert, R Gruber, R Keller, F Troyon and J Vaclavik
Centre de Recherches en Physique des Plasmas, Lausanne, Switzerland
- EP32** Free-boundary equilibrium of a high- β tokamak
J P Goedbloed
Association Euratom-FOM, Jutphaas-Nieuwegein, The Netherlands

- EP33** Numerical studies of MHD instabilities
J L Johnson*, M S Chance, R L Dewar, A H Glasser, R C Grimm, J M Greene, S C Jardin, J Manickam,
A E Miller, D A Monticello, A M M Todd, K E Weimer and R B White
Plasma Physics Laboratory, Princeton University, Princeton, USA
- EP34** Studies of particle and energy balance of ions in tokamaks T-4 and Tuman-2a by methods of
corpuscular plasma diagnostics
V V Afrosimov, E L Berezovsky, A B Izvozchikov, A I Kislyakov, M P Petrov and A V Khudoleev
Ioffe Physico-Technical Institute, USSR Academy of Sciences, Leningrad, USSR