

1992 INTERNATIONAL SHERWOOD FUSION THEORY CONFERENCE

Sweeney Convention Center, Sante Fe, NM
April 6 - 8, 1992

REGISTRATION - El Dorado Hotel, Lobby area
Sunday, April 5 - 6:00pm - 10:00pm

REGISTRATION - Sweeney Convention Center
Monday, April 6 - 7:45am - 5:00pm
Tuesday, April 7 - 8:00am - 12:00pm, 8:00pm - 10:00pm
Wednesday, April 8 - 8:00am - 10:00am

MONDAY MORNING

WELCOME - 8:20am - Alan Glasser, Local Chairman

1A Review Talk
8:30am - 9:20am
Presiding: J. Van Dam

- 1A1. The Controlled Release of Fusion Energy Using the Deuterium Tritium Reaction in JET. Team. JET and A. Gibson.

1B ORAL SESSION
9:30am - 12:00pm
Presiding: E. Hameiri

- 1B1. Resistive Internal Kinks and ICRF Phasing Current Drive. F. Porcelli, A. Cherubini, and A. Taroni.
1B2. 3D Toroidal Gyrokinetic Simulation of Ion Temperature Gradient Driven Turbulence. S. E. Parker and W. W. Lee.
1B3. Nonlinear Particle and Fluid Simulations using Quasi-Ballooning Coordinates. A. M. Dimits, T. J. Williams, and J. A. Byers.
1B4. Map Model for Nonlinear Alpha Particle Interaction with Toroidal Alfvén Eigenmodes. H. Ye, H. L. Berk, and B. N. Breizman.
1B5. Fluid/Kinetic Models for Shear Alfvén TAE Instabilities in Tokamaks. D. A. Spong, B. A. Carreras, and C. L. Hedrick.

MONDAY AFTERNOON

1C POSTER SESSION
2:00 - 4:00pm

- 1C1. Neutral Negative Energy Modes for Vlasov-Poisson Equilibria. B. Shadwick and P. J. Morrison.
- 1C2. Single-Equation DTEM Calculations with Two Nonlinearities. K. L. Sidikman, B. A. Carreras, N. Dominguez, L. Garcia, and P. H. Diamond.
- 1C3. Similarity Variables and MHD Stability Thresholds. D. Montgomery and X. Shan.
- 1C4. Electron-Cyclotron Current Drive in the Tokamak Physics Experiment. A. H. Kritz, S. H. Radin, and G. R. Smith.
- 1C5. Particle-in-Cell Calculations on Massively Parallel Computers. P. M. Lyster, P. C. Liewer, R. D. Ferraro, and V. K. Decyk.
- 1C6. Possible Poloidal Asymmetry Effects in Beam-Heated TFTR Plasmas. Z. Chang, J. D. Callen, S. D. Scott, and L. C. Johnson.
- 1C7. Gyrofluid and Kinetic Calculations in Toroidal Geometry. A. Y. Aydemir.
- 1C8. Radiative Condensation and Boundary Condition Effects in Tokamak Edge Turbulence. L. A. Charlton, B. A. Carreras, J.-N. Leboeuf, and V. E. Lynch.
- 1C9. Symplectic Kick Maps for Arnold Diffusion and Explosive Instability in Plasmas. C. S. Kueny and P. J. Morrison.
- 1C10. Dielectric Response and Fluctuations in Gyrokinetic Plasma. J. A. Krommes.
- 1C11. Turbulent Ion Transport in the General Toroidal Geometry. E. G. Heo, B. H. Park, D.-I. Choi, J. Hernandez, W. Horton, and P. N. Yushmanov.
- 1C12. Self-Consistent Generation of Sheared Flow and Stabilization of Raleigh-Taylor Convection Cells. J. F. Drake, J. Finn, P. N. Guzdar, A. B. Hassam, and P. H. Diamond.
- 1C13. Numerical Instability in a 2D Gyrokinetic Code Caused by Divergent ExB Flow. J. A. Byers, A. M. Dimits, and Y. Matsuda.
- 1C14. Stability of the Low- n TAE Modes. C. Z. Cheng and G. Y. Fu.
- 1C15. Toroidal and Trapped Ion ITG Modes with Anisotropic η (sub i). H. Song and A. K. Sen.
- 1C16. A Model for Dissipative Trapped Electron Mode Turbulence with Ion Landau Damping and Finite Larmor Radius Effects. N. Dominguez, C. L. Hedrick, and J.-N. Leboeuf.
- 1C17. Edge Plasma Confinement in a Field-Reversed Configuration. L. C. Steinhauer and R. A. Clemente.
- 1C18. Loss of Passing Energetic Particles due to Low Frequency, Low- n MHD. H. E. Mynick.
- 1C19. Ballooning Stability Analysis and Optimization of Tokamak Equilibria. J. A. Holmes, D. J. Strickler, and Y.-K. M. Peng.
- 1C20. Nonlinear Evolution of Internal Kink Modes in the Collisionless and Semi-Collisional Regime. R. D. Sydora, H. Naitou, and J. M. Dawson.
- 1C21. Graph Massage, an Improved Technique in Moving Finite Elements. A. Kuprat, K. Miller, and A. H. Glasser.
- 1C22. The Realizable Markovian Closure: A Statistical Approximation for Drift-Wave Turbulence. J. C. Bowman, J. A. Krommes, and M. Ottaviani.
- 1C23. Toroidal Mode Structure of Long Wavelength Microinstabilities. W. M. Tang and G. Rewoldt.
- 1C24. Two-Fluid MHD Description of the Internal Kink Mode in Tokamaks. L. Zakharov, B. Rogers, and B. Coppi.
- 1C25. Simulation of Lower Hybrid Current Profile Modification Experiments. J. Kesner, S. Jones, S. Luckhardt, S. Bernabei, and V. Fuchs.
- 1C26. Applications of the Quiet Implicit PIC Method. D. C. Barnes and R. A. Nebel.
- 1C27. Stability Analysis of the internal 1/1 Mode in Tokamaks and Limitations of the Resistive MHD Model. W. Stodiek, M. H. Hughes, J. Manickam, and J. L. Johnson.
- 1C28. Saturation of Alpha Particle Driven Alfvén Wave Turbulence Through Ion Compton Scattering. F. Y. Gang.
- 1C29. Solution of Edge Plasma Transport Equations by a Mapping Technique. F. L. Hinton.
- 1C30. X-point Effects on Particle Orbits and Neoclassical Transport. E. R. Solano and R. D. Hazeltine.
- 1C31. Anomalous Electron Pinches in Hot Electron Plasmas. R. R. Dominguez.
- 1C32. Beta-limit Evaluation for the TJ-IU Toratron. C. Alejandre, E. Ascasibar, L. Garcia, A. Lopez Fraguas, A. Varlas, B. A. Carreras, and N. Dominguez.
- 1C33. Quasi Three-Dimensional Electron Holes in Magnetized Plasma. D. Jovanovic and W. Horton.
- 1C34. The Asymptotic Spectrum of a Viscous 2-D Turbulence. M. Wakatani, Y. Z. Zhang, X. N. Su, S. M. Mahajan, and W. Horton.

- 1C35. A Fully Nonlinear Characteristic Method for Gyrokinetic Simulation. W. W. Lee and S. E. Parker.
1C36. Resonant Pfirsch-Schluter Currents and Equilibrium Magnetic Island Formation. C. C. Hegna, J. D. Callen, and J. N. Talmadge.
1C37. The Direct Interaction Approximation Applied to a Dissipative Drift Wave Turbulence Model. J. A. Crotinger, W. P. Dannevik, and A. E. Koniges.
1C38. Current Drive by Lower Hybrid Waves in Combination with Fast Alfvén Waves. A. K. Ram, A. Bers, V. Fuchs, R. W. Harvey, and M. G. McCoy.
1C39. Transport Inferred from Consideration of Particle Orbits in Drift Turbulence. P. M. Bellan.
1C40. Effects of Neutrals on Tokamak Edge Plasma. M. D. Calvin, R. D. Hazeltine, and P. M. Valanju.
1C41. Effects of Flux Surface Jitter on Linear Instabilities. M. G. Prahovic, A. Y. Aydemir, R. D. Hazeltine, and A. Thyagaraja.
1C42. The Kinetic Kink Mode. R. Betti, J. P. Freidberg, and S. Migliuolo.
1C43. Chaotic Transport by Drift/Rosby Waves in Analogous Plasma and Rotating Fluid Systems. D. Del-Castillo-Negrete, P. J. Morrison, W. Holloway, T. Solomon, and H. L. Swinney.
1C44. Effect of Finite Pressure on Tearing Modes. A. Bhattacharjee, R. Iacono, C. Ronchi, J. M. Greene, and M. H. Hughes.
1C45. Alfvén Wave Resonance for Finite Length Field Lines. E. Hameiri.
1C46. Forced Reconnection and Current Sheet Formation in Taylor's Model. X. Wang and A. Bhattacharjee.
1C47. Stability of High- n TAE Modes in the Presence of Fusion Alpha Particles. G. Y. Fu and C. Z. Cheng.
1C48. Theoretical Studies of Low Frequency Plasma Heating and Current Drive in Tokamaks. P. E. Moroz, N. Hershkowitz, and J. A. Tataronis.
1C49. The Magnetic Configuration of an Inductively Driven Steady-State Toroidal Plasma. T. K. Chu.
1C50. Dielectric Energy versus Plasma Energy. P. J. Morrison and D. Pfirsch.

1D POSTER SESSION

4:00 - 6:00pm

- 1D1. The NRL Mode and Phase-Locked Quasioptical Gyrokystron for Fusion Plasma Heating. A. W. Fliflet, R. P. Fischer, and W. M. Manheimer.
1D2. Two-Dimensional Numerical Simulation of Trapped Ion Mode and Drift Wave Turbulence on a Nested κ -Space Grid. O. T. Kingsbury and R. E. Waltz.
1D3. Theory-Based Transport Simulations of TFTR L-mode Plasmas. G. Bateman and C. E. Singer.
1D4. An Optimum Efficiency Current Drive for Confining a Tokamak Plasma. B. Amini.
1D5. Nonlinear MHD Spectral-Method Computation with Spatially-Variable Resistivity. X. Shan and D. Montgomery.
1D6. Stability of Non-Axisymmetric Configurations of a Non-Neutral Plasma Column. R. A. Smith and T. M. O'Neil.
1D7. Similarity Solutions for RMHD. R. Acevedo and P. J. Morrison.
1D8. Stabilization of External Kinks in Tokamaks. J. Manickam.
1D9. Short-Wavelength Electromagnetic Fluctuations in Edge Plasmas: Nonlinear Features. M. O. Vakulenko and P. P. Sosenko.
1D10. Self-Consistent Theory for Low- Z (sub a) Impurity Pellet Ablation in High Temperature Tokamaks. L. Vahala, G. Gerdin, and P. B. Parks.
1D11. Scaling of ExB Particle Diffusion in Regular and Random Hamiltonians. M. B. Isichenko and W. Horton.
1D12. Potential and Density Distributions in Inertial-Electrostatic Confinement Systems. R. W. Bussard and K. E. King.
1D13. Inertial-Electrostatic Confinement Studies. R. A. Nebel, L. Turner, R. W. Bussard, and G. H. Miley.
1D14. TRANSP Analysis of Supershots with ICRF Heating in TFTR. R. C. Goldfinger, D. B. Batchelor, C. K. Phillips, G. W. Hammett, D. C. McCune, J. R. Wilson, and M. C. Zarnstorff.
1D15. Neoclassical Diffusion in a Turbulent Plasma. P. N. Yushmanov.

- 1D16. A Unified Theory of Tokamaks and Stellarators. F. Bauer, P. Garabedian, and M. Taylor.
1D17. Computer Simulation of Transport Driven Current in Tokamaks. W. J. Nunan, R. D. Sydora, and J. M. Dawson.
1D18. Energy and Current Transport: Symmetry Breaking and Degradation. F. Pegoraro and B. Coppi.
1D19. The Ballooning Instability in Vortex Rings with Swirl. A. Lifschitz and E. Hameiri.
1D20. Active Control of Fluctuations in a Reversed-Field-Pinch. Y. L. Ho and D. D. Schnack.
1D21. Kinetic Toroidal η (sub i)-mode Study in the Presence of Parallel Sheared Flow. J. Q. Dong and W. Horton.
1D22. Modification of the Preische Pest Post-Processor. J. L. Johnson and J. Manickam.
1D23. Low-Frequency Plasma Motion: Energy Conservation Law. P. P. Sosenko.
1D24. Turbulent Transport Across a Separatrix due to ETG Driven Instability in Tokamak SOL. X. Q. Xu, P. H. Diamond, and M. N. Rosenbluth.
1D25. Generation of a Minimum Enstrophy Flow in the Tokamak Scrapeoff Layer. N. Mattor and R. H. Cohen.
1D26. A Hybrid Particle-Fluid Simulation for Model Tokamak Plasma Edge Turbulence. C. K. Birdsall and X. Q. Xu.
1D27. Confinement Enhancement in Multiple-Mirror Systems by Transient Potential Barriers. R. F. Post.
1D28. Energy Cascades for Drift Turbulence with Trapped Ions. S. Rath and J. A. Krommes.
1D29. Model Studies of L-H Transition Dynamics with Turbulently Generated Differentially Rotating Flow. P. W. Terry, P. H. Diamond, B. A. Carreras, and K. L. Sidikman.
1D30. The Exact and Drift Hamiltonian. Q. Yao and A. H. Boozer.
1D31. Bootstrap Currents in Tokamaks of Arbitrary Aspect Ratio. H. R. Wilson.
1D32. Three-Dimensional Fluid Simulation of Edge Turbulence in Tokamaks. P. N. Guzdar, J. F. Drake, D. R. McCarthy, A. B. Hassam, and C. S. Liu.
1D33. Bohr-Sommerfeld Eigenfrequencies and Eigenfunctions for Vector Wave Equations. R. G. Littlejohn and W. G. Flynn.
1D34. Two Dimensional Aspects of Toroidal Drift Waves in the Ballooning Representations. X. D. Zhang, Y. Z. Zhang, and S. M. Mahajan.
1D35. Approximate Model of DTEM with Ion Landau Damping and FLR Effects. C. L. Hedrick, J.-N. Leboeuf, and N. Dominguez.
1D36. Reduced Microscopic Description of Magnetized Plasma. V. K. Decyk and P. P. Sosenko.
1D37. Filamentary Construct of High-Beta Plasmas. T. Tajima, R. Kinney, and N. Petviashvili.
1D38. Painleve Analysis of Particle Dynamics in Magnetic and Electric Fields Associated with Reconnection. J. W. Larson and E. R. Tracy.
1D39. Poloidal Rotation and Density Asymmetries in a Tokamak Plasma with Strong Toroidal Rotation. W. M. Stacey, Jr..
1D40. Gyro-Landau Fluid Model Simulations of Ion Temperature Gradient Mode Turbulence in Toroidal Geometry. R. E. Waltz, G. D. Kerbel, and G. W. Hammett.
1D41. Fast Ion Driven Bernstein Instabilities via Relativistic Mass Variation. K.-R. Chen.
1D42. Calculations of Combined LH, FW, and EC Power Deposition and Current Drive. R. W. Harvey and M. G. McCoy.
1D43. 1D and 2D Code-Merging with Applications to a Self-Consistent Core-Edge Plasma Simulation. A. Tarditi.
1D44. Far Field ICRF Sheath Formation on Walls and Limiters. J. R. Myra and D. A. D'Ippolito.
1D45. Magnetofluid Dynamics with Electron Pressure and Inertia. C. E. Seyler.
1D46. Lower Hybrid Calculations for PBX-M. D. W. Ignat, E. J. Valeo, S. C. Jardin, and S. Bernabei.
1D47. Two-Dimensional Detailed MHD Simulation of Deuterium-Fiber-Initiated Z-Pinches. P. T. Sheehey, I. R. Lindemuth, R. H. Lovberg, and R. A. Riley, Jr..
1D48. Tokamak Transport Based on the Thirteen Moments Model. M. K. Tippet.
1D49. Stationary 3D Vlasov Plasma Equilibria with FLR Effects. D. R. Martin and D. V. Anderson.
1D50. Operational Scenarios for a Steady-State Advanced Tokamak (SSAT). W. M. Nevins and Team. TPX.

TUESDAY MORNING

2A Review Talk
8:30am - 9:20am
Presiding: W. M. Nevins

2A1. New Mathematical Methods for Linear Plasma Problems. A. N. Kaufman.

2B ORAL SESSION
9:30am - 12:00pm
Presiding: G. Morales

- 2B1. The Interaction of Energetic Alpha-Particles with Intense Lower Hybrid Waves. N. J. Fisch and J.-M. Rax.
2B2. Energetic Alpha Particle Induced Bootstrap Current. C. T. Hsu, D. J. Sigmar, and K. C. Shaing.
2B3. On the Possibility of a Steady State Tokamak Maintained by Bootstrap Current Drive Alone. J. M. Dawson, W. J. Nunan, and S. Ma.
2B4. Electron-Temperature-Gradient Turbulence in Tokamak Scrape-Off Layers. R. H. Cohen, H. L. Berk, D. D. Ryutov, Yu. Tsidulko, and X. Q. Xu.
2B5. Physics Principles of Ignition Experiments. B. Coppi, M. Nassi, and L. E. Sugiyama.

TUESDAY EVENING

2C POSTER SESSION
8:00pm - 10:00pm

- 2C1. Application of Plasma Theory Techniques to Fusion Engineering Problems: A Fast Solver for the Time Evolution of the PF Currents. J. Wei, J. P. Freidberg, and S. W. Haney.
2C2. Net Transport Across Fluctuating Flux Surfaces. J. B. Hollenberg and J. D. Callen.
2C3. Application of Plasma Theory Techniques to Fusion Engineering Problems: Quench Protection in Superconductors. A. Shajii and J. P. Freidberg.
2C4. Low Beta Ideal MHD Stability of DIII-D Revisited: Wall Stabilization. A. D. Turnbull.
2C5. Kinetic Description of Toroidal Alfvén Eigenmodes. W. Q. Li, S. M. Mahajan, D. W. Ross, and M. S. Chu.
2C6. Effects of Sheared Toroidal Rotation on Single Particle Dynamics, Nonlinear Gyrokinetics, and Wave-Particle Interaction. T. S. Hahn.
2C7. Transport in a Stochastic Magnetic Field. R. B. White, J.-M. Rax, and Y. Wu.
2C8. MHD Tilt Stability of Non-Stationary Spheromaks. U. Shumlak, J. L. Eddleman, T. K. Fowler, J. H. Hammer, and E. C. Morse.
2C9. Specific Transport Process under ECRH in Tokamaks. V. I. Poznyak and P. N. Yushmanov.
2C10. Transport Simulation of Oscillating Gas-Puff on TEXT using Theoretical Models. D. W. Ross, B. Richards, W. L. Rowan, and J. C. Wiley.
2C11. Magnetic Reconnection in Electron-Magnetohydrodynamics. S. V. Bulanov, F. Pegoraro, and A. S. Sakharov.
2C12. Perpendicular Ion Acceleration at Frequencies Larger than the Ion-Cyclotron Frequency. K. Reitzel, G. J. Morales, and V. K. Decyk.
2C13. ELMS as a Kelvin-Helmholtz Instability. H. R. Strauss.

- 2C14. The Performance of a Fluid Code on Massively Parallel Machines. V. E. Lynch, B. A. Carreras, J. B. Drake, J.-N. Leboeuf, P. Liewer, and D. W. Walker.
- 2C15. Gyrokinetic Particle Simulation of Impurity Transport. R. A. Santoro and W. W. Lee.
- 2C16. Reconnection Driven by Electron Pressure and the Fast Sawtooth Crash. R. G. Kleva, J. F. Drake, and F. L. Waelbroeck.
- 2C17. Monte-Carlo Simulation of Kinetic Transport Near the Tokamak Edge. H. Xiao, H. Ye, Y. Z. Zhang, and R. D. Hazeltine.
- 2C18. Stochastic Broadening in a Single-null Divertor Tokamak. A. Punjabi, A. Verma, and A. H. Boozer.
- 2C19. Non-Standard High Energy Ion Orbits: Slowing Down and MHD Stabilization. L.-G. Eriksson, H. L. Berk, F. Porcelli, and R. Stankiewicz.
- 2C20. Bootstrap Current Driven by Energetic Ion Species in Tokamaks. C. S. Chang.
- 2C21. ICRF Fast Wave Current Drive and MHD Equilibrium Model. P. T. Bonoli, R. C. Englade, M. Porkolab, and M. E. Fenstermacher.
- 2C22. Profiles Marginally Accessible to the Second Region of Stability. M. S. Chance.
- 2C23. Further Studies of Flow Effects on Long Wavelength Drift Wave Turbulence. Y.-M. Liang and P. H. Diamond.
- 2C24. Predictions of Alpha Parameters in Tokamaks with Q (sub DT) = 5. R. V. Budny, D. C. McCune, and S. J. Zweben.
- 2C25. The Implications of the Generalized Kirchhoff's Law on ECE Emission Diagnostics and the Role of Synchrotron Radiation in Power Balance and Trans. D. G. Swanson and V. F. Shvets.
- 2C26. Two-Dimensional Edge Plasma Modeling (Newedge). C. Koesoemodiprodo, A. K. Prinja, and D. A. Knoll.
- 2C27. Nonadiabaticity and Toroidal Mode Coupling in Collisional Drift Waves. M. Schluter and B. Scott.
- 2C28. The Temperature Dependence of LHCD Efficiency. K. Kupfer and D. Moreau.
- 2C29. Ponderomotive Current Drive by Alfvén-Ion Cyclotron Waves. C. Litwin and N. Hershkowitz.
- 2C30. Physics Basis for Advanced Tokamaks. S. C. Jardin, C. Kessel, J. Manickam, D. A. Monticello, and N. Pomphrey.
- 2C31. Effect of Magnetic Fluctuations on the Lower Hybrid Wave Propagation in Tokamaks. G. Vahala, L. Vahala, and P. T. Bonoli.
- 2C32. MDI: Mathematica Database Interface for the MFE Database. J. C. Wiley and W. H. Miner, Jr..
- 2C33. Rapid Quenching of Collisional Drift Wave Turbulence by E cross B Velocity and Vorticity Gradients. B. Scott.
- 2C34. Nonlinear Evolution of Alpha Particle Driven Alfvén Turbulence and Anomalous Alpha Transport. D. J. Sigmar and F. Y. Gang.
- 2C35. Empirical Spectral Codes for Tokamak Turbulence. G. R. Smith, R. H. Cohen, E. D. Boerner, and A. M. Dimits.
- 2C36. A Normal Form Theory of Pairwise Linear Mode Conversion. W. G. Flynn and R. G. Littlejohn.
- 2C37. Electromagnetic Effects in Convective Cell Fluctuations and Diffusion. O. H. Sitenko and P. P. Sosenko.
- 2C38. Computational Study of the Interplay of ExB and Polarization Drift Nonlinearities in Drift Wave Turbulence. D. E. Newman, P. W. Terry, and P. H. Diamond.
- 2C39. Effect of Bootstrap Current Modified Profiles on Ideal MHD Stability Limits for Long Pulse, High Poloidal Beta Equilibria in TFTR. S. A. Sabbagh, M. E. Mauel, G. A. Navratil, M. G. Bell, R. V. Budny, C. E. Bush, E. D. Fredrickson, J. Manickam, D. C. McCune, K. M. McGuire, H. K. Park, E. J. Synakowski, G. Taylor, R. M. Wieland, M. C. Zarnstorff, J. Kesner, and M. W. Phillips.
- 2C40. Edge Turbulence Scaling with Shear Flow. Y. Z. Zhang and S. M. Mahajan.
- 2C41. Stability Theory Formulated in Terms of a Scalar Representation. E. K. Maschke.
- 2C42. Mathematica Approach to Neoclassical Theory. Y.-B. Kim.
- 2C43. Magnetic Topology Transitions in Collisionless Plasmas. P. Detragiache and B. Coppi.
- 2C44. High Beta Axisymmetric D-(3)He Reactor with Internal Levitated Coil. V. P. Pastukhov, A. I. Morozov, and A. Yu. Sokolov.
- 2C45. MHD Computation of Effects of Feedback and Mode Rotation on RFP Tearing Modes. E. J. Zita, S. C. Prager, and Y. L. Ho.

- 2C46. Bootstrap Dependence on Profile Parameters and J(sub bs) Alignment. N. Pomphrey.
- 2C47. Vortex-Wave Dynamics in an Inhomogeneous Magnetized Plasma. M. Kono, I. Shibahara, and W. Horton.
- 2C48. Kinetic Theory of Toroidicity-Induced Alfvén Eigenmodes. R. R. Mett and S. M. Mahajan.
- 2C49. Generation of Toroidal Convective Cells in the Tokamak Edge. D. R. McCarthy, P. N. Guzdar, J. F. Drake, and A. B. Hassam.
- 2C50. Impurity Effects on Toroidal ITG Modes Circular vs. Elliptical Plasma Crosssections. S. Migliuolo.

WEDNESDAY MORNING

3B ORAL SESSION

8:30am - 10:30am

Presiding: E. Tracy

- 3B1. Anomalous Kinetics of Incomplete Chaos. G. M. Zaslavsky.
- 3B2. Nonlinear Drift Wave Structures in a Sheared Magnetic Field. X. N. Su, W. Horton, and P. J. Morrison.
- 3B3. Nonlinear Skin Phenomena in (Almost) Collisionless Short-Duration Plasmas. A. Fruchtman and L. I. Rudakov.
- 3B4. The Theory of Nearly Incompressible Magnetofluid-Dynamics. G. P. Zank and W. H. Matthaeus.

3C POSTER SESSION

10:30am - 12:30pm

- 3C1. The Effects of Finite-Beta and of Radial Boundary Conditions in Gyrofluid Equations. G. W. Hammett, W. Dorland, and M. A. Beer.
- 3C2. Nonlinear Gyrofluid Simulation and Analysis: ITG Turbulence. W. Dorland, G. W. Hammett, and T. S. Hahn.
- 3C3. Tokamak Scrape-Off Layer Simulations Using the Fully Implicit LEDGE Code. T. D. Rognlien, J. L. Milovich, M. E. Rensink, R. H. Cohen, and T. B. Kaiser.
- 3C4. Influence of Various Physics Phenomena on Fast-Wave Current Drive Efficiency in Advanced Tokamaks. E. F. Jaeger, D. B. Batchelor, M. D. Carter, R. C. Goldfinger, and D. C. Stallings.
- 3C5. Finite-Beta Gyrokinetic Plasma Simulation using the Canonical Momentum Formulation. J. C. Cummings and W. W. Lee.
- 3C6. Ion Cyclotron Heating with Lower Hybrid Waves. E. C. Morse and G. J. DiPeso.
- 3C7. Nonadiabatic Interaction of Low-Energy Particles with Large-Amplitude Electron-Cyclotron Waves. G. V. Stupakov and R. H. Cohen.
- 3C8. Gyrokinetic Simulations of Ion-Temperature-Gradient Modes with Sheared Poloidal Velocity. B. I. Cohen, A. M. Dimits, T. J. Williams, and N. Mattor.
- 3C9. Analytic Derivation of the Magnetosonic Wave Reflection Field for ICRF Heating in Tokamak Geometry. D. R. Cook, A. N. Kaufman, A. J. Brizard, and H. Ye.
- 3C10. RF Active Confinement Control of Edge Turbulence: High Frequency Waves and Helicity Injection. G. G. Craddock, P. H. Diamond, H. Biglari, and M. Ono.
- 3C11. Collisionless Heating in the FRC from a Chaotic Conductivity. W. Horton, M. B. Isichenko, J. Y. Kim, and T. Tajima.
- 3C12. Numerical Three Dimensional Equilibria with Pressure Anisotropy. S. P. Hirshman, W. A. Cooper, S. Merazzi, and R. Gruber.
- 3C13. Symbolic Signal Processing and Pattern Recognition. A. B. Rechester and R. B. White.
- 3C14. Poloidal Beta Scaling for a Bootstrapped Tokamak. R. Iacono and A. Bhattacharjee.
- 3C15. Asymptotic Enstrophy Spectrum of 2-D Turbulence with Velocity Shear. S. M. Mahajan and Y. Z. Zhang.
- 3C16. Parallelizing Algorithms for Non-Linear Gyrofluid Turbulence Computations. G. D. Kerbel and R. E. Waltz.

- 3C17. Exact Analytical Solution of the Toroidal Singular Mode Equations. A. H. Glasser.
- 3C18. Transport Processes in the Reversed-Field Pinch. D. D. Schnack and Y. L. Ho.
- 3C19. Nonlinear Evolution of Resistive Tearing Mode Instability with Shear Flow and Viscosity. L. Ofman, P. J. Morrison, and R. S. Steinolfson.
- 3C20. Gyrokinetic Simulations of Unstable Toroidal η (sub i) Modes. H. V. Wong.
- 3C21. Resonant Damping of Toroidal Alfvén Eigenmodes in General Equilibria. F. Zonca and L. Chen.
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