

1994 INTERNATIONAL SHERWOOD FUSION THEORY CONFERENCE

Fairmont Hotel, Dallas, Texas
March 14-16 , 1994

REGISTRATION - Regency Ballroom Foyer, Banquet Level
Sunday, March 13 - 4:00pm - 9:00pm

RECEPTION - Regency Ballroom Foyer, Banquet Level
- 7:00pm - 9:00pm

REGISTRATION - Regency Ballroom Foyer, Banquet Level
Monday, March 14 - 7:30am - 5:00pm
Tuesday, March 15 - 8:00am - 5:00pm
Wednesday, March 16 - 8:00am - 12noon

MONDAY MORNING

WELCOME - 8:20am - P.J. Morrison and J.W. Van Dam, Local Chairmen

1A REVIEW TALK - Regency Ballroom
8:30am - 9:20am
Presiding: L. Chen

1A1. Initial D-T experiments on TFTR. K. McGuire.

1B ORAL SESSION - Regency Ballroom
9:30am - 12:00noon
Presiding: S. Cowley

- 1B1. Linear stability analysis and nonlinear hybrid simulation of TAE modes with application to TFTR d-t experiments. G. Y. Fu, C. Z. Cheng, W. Park, and R. Budny.
- 1B2. Stabilization of MHD ballooning modes by sheared toroidal rotation. R. L. Miller, A. B. Hassam, F. L. Waelbroeck, and R. E. Waltz.
- 1B3. Transition to a thermally collapsed divertor plasma. T. D. Rognlien, D. A. Knoll, M. E. Rensink, and G. R. Smith.
- 1B4. Particle dynamics in chirped-wave and its application to tokamak plasmas. C. T. Hsu, C. Z. Cheng, P. Helander, D. J. Sigmar, and R. B. White.
- 1B5. Linked mirror neutron source concept. V. P. Pastukhov, V. I. Ilgisonis, H. L. Berk, and V. Wong.

MONDAY AFTERNOON

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

- 1C1. Low-frequency short-wave-length electromagnetic fluctuations in a plasma: the general renormalized statistical approach with cross-field correlations. M. O. Vakoulenko.
- 1C2. Theory of low-frequency electromagnetic fluctuations in multicomponent plasmas: magnetic effects on the short-wave-length convective cells. P. P. Sosenko and M. O. Vakoulenko.
- 1C3. Nondissipative two-fluid theory of singular modes in toroidal geometry. L. J. Zheng and M. Tessarotto.
- 1C4. Monte Carlo operators for collisional transport theory. M. Tessarotto, R. B. White, and L. J. Zheng.
- 1C5. Tearing modes with multiple rational surfaces. M. Persson, R. L. Dewar, E. K. Maschke, and G. Urquijo.
- 1C6. Fast nonlinear growth of magnetic islands due to parallel electron pressure gradient. X. Wang and A. Bhattacharjee.
- 1C7. Stability of tearing modes in finite-beta plasmas. R. Iacono, A. Bhattacharjee, C. Ronchi, J. Greene, and M. H. Hughes.
- 1C8. Pressure-induced islands in three-dimensional toroidal magnetohydrodynamic equilibria. A. Bhattacharjee, T. Hayashi, N. Nakajima, and T. Sato.
- 1C9. Noether's theorem revisited: generalized symmetries and conservation laws for plasma fluid models. R. Acevedo and P. J. Morrison.

- 1C10. Statistical analysis of turbulence in the tokamak scrape-off-layer. S. Benkadda, T. D. De Wit, M. Endler, X. Garbet, A. Sen, and A. Verga.
- 1C11. The fluid approach to describe plasma rotation in non-axisymmetric systems using general toroidal flux coordinates. M. Coronado.
- 1C12. The influence of fluctuations on the plasma rotation in tokamaks. I. A. Voitsekhovitch, M. Coronado, and J. J. Martinell.
- 1C13. Fluctuation effects of the tokamak edge energy balance. J. J. Martinell.
- 1C14. Minimum ohmic dissipation states in plasmas sustained by DC helicity injection. R. Farengo and J. R. Sobehart.
- 1C15. ITER divertor: regimes with recombining plasma. T. K. Soboleva, S. Krasheninnikov, D. J. Sigmar, O. V. Batishev, and A. B. Kukushkin.
- 1C16. Path integrals, turbulence, and numerical tokamak. M. B. Isichenko.
- 1C17. Current drive and rf dynamo in two-fluid theory. C. Litwin.
- 1C18. Poloidal rotation of tokamak plasmas at super-poloidal-sonic speeds. A. B. Hassam.
- 1C19. New hamiltonian formulation for multi-fluid electrodynamics. J. Larsson.
- 1C20. Charge and current neutralization in the formation of ion rings in a background plasma. B. V. Oliver, D. D. Ryutov, and R. N. Sudan.
- 1C21. Gyrokinetic Vlasov equation for rotating axisymmetric tokamak plasmas. A. Brizard.
- 1C22. Theory of toroidal Alfvén eigenmode saturation via nonlinear coupling to continuum. T. S. Hahm and L. Chen.
- 1C23. Reconstructing phase space dynamics from MHD fluctuations data in tokamaks. A. B. Rechester and R. B. White.
- 1C24. Feasibility studies of lower hybrid current drive in the MST reversed field pinch. E. Uchimoto, M. Cekic, S. A. Hokin, C. Litwin, S. C. Prager, J. S. Sarff, C. R. Sovinec, and R. W. Harvey.
- 1C25. Magnetohydrodynamic simulation on an unstructured, adaptive mesh. D. D. Schnack, Z. Mikic, I. Lotatti, P. Satyanarayana, and A. Turnbull.
- 1C26. Plasma boundary conditions. E. Hameiri.
- 1C27. Analytic results in the theory of reflectometry in multi-dimensional plasmas. B. B. Afeyan, B. I. Cohen, J. A. Crotinger, and E. A. Williams.
- 1C28. Progress in toroidal gyrokinetic simulations. J. A. Byers, A. M. Dimits, T. J. Williams, and B. I. Cohen.
- 1C29. Effect of electric drift on sheath structure near, and flows into, a toroidal limiter. D. D. Ryutov and R. H. Cohen.
- 1C30. Symmetric DC biasing effects on SOL instabilities. R. H. Cohen.
- 1C31. Implementation of a delta f implicit moment algorithm. B. I. Cohen, A. M. Dimits, X. Xu, and J. Stimson.
- 1C32. Rayleigh-Taylor mode equations for inverted-flow gas-target divertors. L. L. LoDestro, R. H. Cohen, and L. D. Pearlstein.
- 1C33. Drift wave propagation as a source of plasma edge turbulence II: nonlinear theory. I. Raskolnikov and N. Mattor.
- 1C34. Equilibrium current profile of a reversed field pinch. V. Smerdyakov and N. Mattor.
- 1C35. A core-edge time-dependent simulation through coupled 1D and 2D non-linear transport codes. A. Tarditi, R. H. Cohen, T. D. Rognlien, and G. R. Smith.
- 1C36. Fluids simulations of nonlocal dissipative drift-wave turbulence. X. Xu, R. H. Cohen, J. A. Crotinger, and A. I. Shestakov.

- 1C37. Large-gyroradius resonance processes: wave emission and absorption by hot alphas in nonuniform magnetic field. Y-M. Liang and A. N. Kaufman.
- 1C38. Energy partition among ion species in degenerate gyroresonant absorption. A. N. Kaufman, Y-M. Liang, A. Brizard, and E. R. Tracy.
- 1C39. Modelling of current profile control in the TPX and Alcator C-MOD devices. P. Bonoli and M. Porkolab.
- 1C40. Fokker-Planck simulation of radiative divertor plasmas. L. M. Montierth, D. A. Knoll, and V. A. Mousseau.
- 1C41. Impurity transport and radiation in radiative divertor plasmas. D. A. Knoll and P. R. McHugh.
- 1C42. Disruption-free toroidal confinement. L. C. Steinhauer.
- 1C43. An adaptive-hp finite element method for tokamak fluid transport. J. C. Wiley and D. W. Ross.
- 1C44. The radial structure of ion temperature gradient driven modes. F. Romanelli and F. Zonca.
- 1C45. Finite orbit effects on kinetic toroidal Alfvén eigenmodes excited by energetic particles. S. Briguglio, G. Vlad, F. Zonca, F. Romanelli, and C. Kar.
- 1C46. Test particle diffusion in 2D turbulent flows; an explicit symplectic numerical scheme. I. Dexas, S. Tian, and W. Horton.
- 1C47. Propagation of the relativistic fusion-product ion cyclotron instabilities in tokamaks. V. Wong, W. Horton, and K. R. Chen.
- 1C48. Transport code simulations of recent experiments in large tokamaks. J. Weiland, H. Nordman, and G. Bateman.
- 1C49. Enhancing lower hybrid current drive with ICRF waves. A. K. Ram, A. Bers, V. Fuchs, and S. D. Schultz.
- 1C50. A comparative study of the effects of electric field shear on correlation and transport properties of turbulence. V. B. Lebedev and P. H. Diamond.
- 1C51. A kinetic theory ordering for the development of transport theory in the divertor. W. M. Stacey.
- 1C52. Revisiting charge-exchange effects on plasma flow. E. R. Solano, R. D. Hazeltine, and P. M. Valanju.
- 1C53. Isotope scaling and eta-i mode with impurity in tokamak plasma. J. Q. Dong and W. Horton.
- 1C54. Mathematica as a data analysis tool. W. H. Miner, H. Y. W. Tsui, J. C. Wiley, and A. J. Wootton.

1D POSTER SESSION - Regency Ballroom
4:00pm - 6:00pm

- 1D1. Optimal extraction of alpha particle power by waves. Z. H. Wang, M. C. Herrmann, and N. J. Fisch.
- 1D2. Reactor implications of diverting alpha-power to fuel ions. M. C. Herrmann and N. J. Fisch.
- 1D3. Spectra and correlation functions in toroidal ITG turbulence. M. A. Beer, G. W. Hammett, S. Cowley, and W. Dorland.
- 1D4. KTAE boundary layer procedure for modifying MHD shooting codes. H. L. Berk, M. Chu, and M. N. Rosenbluth.
- 1D5. Inertial-range scaling of 2D turbulence. J. C. Bowman.
- 1D6. Gyrokinetic simulations of rotation shear effects on toroidal ballooning modes. M. Kotschenreuther.
- 1D7. Lyapunov exponents, correlation functions, and transport coefficients. D. M. Barnett and T. Tajima.
- 1D8. Basic principles approach for studying nonlinear Alfvén wave-alpha particle dynamics. B. N. Breizman, H. L. Berk, and M. Pekker.
- 1D9. Anisotropy and spectral indices for the driven-damped drift wave problem. W. Horton and W. Dorland.
- 1D10. Direct numerical simulation of inverted density profile ITG turbulence. W. Dorland, W. Horton, and G. W. Hammett.
- 1D11. Eta-i mode in neoclassical regime and neoclassical closure. M. Yagi, M. Azumi, J. P. Wang, and J. D. Callen.
- 1D12. Low beta MHD equilibrium and stability for anisotropic pressure closed field line plasma confinement systems. V. P. Pastukhov, V. I. Ilgisonis, and A. A. Subbotin.
- 1D13. Finite beta plasma equilibrium in toroidally linked mirrors. V. I. Ilgisonis, V. P. Pastukhov, and H. L. Berk.
- 1D14. Toroidal gyrokinetic simulation of eta-i mode fluctuations and transport in a radially sheared electric field. M. J. LeBrun, T. Tajima, W. Horton, and Y. Kishimoto.
- 1D15. Jitter stabilization of electrostatic drift waves. M. G. Prahovic, R. D. Hazeltine, and A. Thyagaraja.
- 1D16. Time dependent studies of advanced tokamak operating modes. A. H. Kritz, P. Bonoli, and M. Porkolab.
- 1D17. Ion orbit loss and the poloidal electric field. H. Xiao, R. D. Hazeltine, and P. M. Valanju.
- 1D18. Exploring the limits of the low q fusion power regime. R. F. Post.
- 1D19. Alfvén wave analysis for Phaedrus-T. N. Hershkowitz and P. E. Moroz.
- 1D20. ICRF fast-wave analysis for TPX. P. E. Moroz, D. B. Batchelor, R. W. Harvey, and M. Porkolab.
- 1D21. Multi-species, self-consistent particle simulation of neoclassical transport. Z. Lin, W. W. Lee, W. Tang, and S. E. Parker.
- 1D22. Stability analysis of ionization fronts of gaseous divertor plasmas. J-S. Kim, P. H. Diamond, and J. Greene.
- 1D23. Ballooning stability of poloidally rotating plasma with a velocity shear. M. V. Medvedev and P. H. Diamond.

- 1D24. Divertor radial electric fields and the inboard-outboard asymmetry of DIII-D divertor legs. R. T. Ratt, A. V. Gruzinov, and P. H. Diamond.
- 1D25. Finite-time singularities in hydrodynamic plasma models. A. V. Gruzinov.
- 1D26. Turbulence suppression and drag reduction by external magnetic field. W. Zhang and P. H. Diamond.
- 1D27. Mode structure and stability of TAE modes in ITER and TFTR DT plasmas. J. Candy and M. N. Rosenbluth.
- 1D28. Pseudo-MHD ballooning modes in tokamaks. J. D. Callen and C. C. Hegna.
- 1D29. The effect of MHD tearing modes on the stability and transport properties of g-modes in the RFP edge. C. C. Hegna, J. D. Callen, S. C. Prager, and P. W. Terry.
- 1D30. Progress in the development of a 3D neoclassical-MHD simulation of a tokamak plasma. T. A. Gianakon, J. D. Callen, and C. C. Hegna.
- 1D31. Turbulent transport across invariant flux surfaces. J. B. Hollenberg and J. D. Callen.
- 1D32. Radial structure and stability of resistive ballooning modes in the presence of poloidal flow-shear in edge region of tokamak. C. S. Liu, S. V. Novakovskii, P. N. Guzdar, and J. F. Drake.
- 1D33. New unstable branch of the resistive ballooning modes. S. V. Novakovskii, P. N. Guzdar, J. F. Drake, C. S. Liu, and F. L. Waelbroeck.
- 1D34. 3D simulations of the resistive ballooning modes-revisited. P. N. Guzdar, J. F. Drake, and A. B. Hassam.
- 1D35. Truncated model study of the 2D Rayleigh instability. K. Hermiz, P. N. Guzdar, and J. M. Finn.
- 1D36. Rotation and toroidal effects on resistive wall kink modes. J. P. Freidberg and R. Betti.
- 1D37. Marfes in tokamaks. J. Kesner.
- 1D38. A 2D kinetic model of the scrape-off layer of a diverted plasma with a private flux region. J. W. Connor and P. J. Catto.
- 1D39. 2D kinetic modeling of a tokamak scrape-off layer with recycling. P. J. Catto, P. Helander, and R. D. Hazeltine.
- 1D40. Fluid equations for the neutral component in a partially ionized plasma. P. Helander and S. Krasheninnikov.
- 1D41. Simplified description of high-Z impurity transport in tokamak edge plasma. D. J. Sigmar, S. Krasheninnikov, and S. P. Hirshman.
- 1D42. Dense ITER divertor plasma modelling with Navier-Stokes neutrals. S. Krasheninnikov, D. J. Sigmar, D. A. Knoll, and P. R. McHugh.
- 1D43. On divertor plasma detachment. N. Krasheninnikova, S. Krasheninnikov, and D. J. Sigmar.
- 1D44. Bursting processes in plasmas and relevant non-linear model equations. B. Basu and B. Coppi.
- 1D45. Heat pinch and current diffusion resulting from coupled electron energy and current transport. R. Gatto, B. Coppi, F. Pegoraro, and L. E. Sugiyama.
- 1D46. Separation of plasma pressure and magnetic field evolution in a two fluid $m = 1$ reconnection process. L. E. Sugiyama and W. Park.
- 1D47. Hamiltonian formulation of low-frequency, nonlinear plasma dynamics. F. Pegoraro, T. J. Schep, and B. N. Kuvshinov.
- 1D48. Vertical instability analysis in noncircular deformable plasmas for the Ignitor experiment. M. Nassi, B. Coppi, S. Graziadei, C. Rita, and M. Roccella.

- 1D49. Growth rates of the ion cyclotron emission instability. C. Riconda, N. Asherie, and B. Coppi.
- 1D50. Structure of compressional Alfvén modes in cylindrical geometry. N. Asherie, B. Coppi, and C. Riconda.
- 1D51. Analysis of $m = 1$ mode stability in D-T plasma with fusion alpha particles. S. Migliuolo, B. Coppi, B. Rogers, and L. Zakharov.
- 1D52. Advanced fusion in ICRF heated plasmas. P. Detragiache, B. Coppi, S. Migliuolo, M. Nassi, and B. Rogers.
- 1D53. Anisotropic pressure effects on advanced operating regimes in tokamaks. M. W. Phillips, M. H. Hughes, and R. Budny.
- 1D54. MHD stability analysis of D-T plasmas in TFTR. M. H. Hughes and M. W. Phillips.
- 1D55. Self-organized critical gradient transport and L-H transition in the presence of ITG mode. T. Tajima, M. J. LeBrun, W. Horton, J. Q. Dong, W. Dorland, and Y. Kishimoto.

TUESDAY MORNING

2A REVIEW TALK - Regency Ballroom
8:30am - 9:20am
Presiding: J. Freidberg

- 2A1. Fast-ion driven Alfvén instabilities in tokamaks. W. W. Heidbrink.

2B ORAL SESSION - Regency Ballroom
9:30am - 10:30am
Presiding: K. Shaing

- 2B1. Stabilization of ideal kink modes in DIII-D by a resistive wall. A. Turnbull, T. S. Taylor, S. J. Thompson, E. J. Strait, J. R. Ferron, L. L. Lao, A. Bondeson, O. Sauter, and D. J. Ward.
- 2B2. Effect of a non-uniform resistive wall on the stability of tokamak plasmas. R. Fitzpatrick.

2C POSTER SESSION - Regency Ballroom
10:30am - 12:30pm

- 2C1. Alpha particle effects on the internal kink mode. Y. Wu and C. Z. Cheng.
- 2C2. 3D wall calculations for delta-W stability analyses. M. S. Chance, S. C. Jardin, J. Bialek, J. L. Johnson, and J. Manickam.
- 2C3. Steady-state transport in generic dissipative drift-wave turbulence. G. Hu and J. A. Krommes.
- 2C4. Stability of TAE modes in TFTR d-t experiments. C. Z. Cheng, G. Y. Fu, R. Budny, E. Fredrickson, S. J. Zweben, and Group. TFTR.
- 2C5. Numerical simulation of an experiment to test the feasibility of ponderomotive feedback stabilization for control of external kink modes S. C. Jardin, M. S. Chance, E. J. Valeo, D. A. D'Ippolito, and J. R. Myra.
- 2C6. Ponderomotive feedback stabilization of external kink modes in tokamaks. D. A. D'Ippolito and J. R. Myra.
- 2C7. Edge biasing and electron heating in RF fields. J. R. Myra, D. A. D'Ippolito, and R. Majeski.
- 2C8. An analysis of the nonlinear generation of sheared flow via E x B Mode coupling of the 2D ITG instability. J. C. Cummings, W. W. Lee, and R. A. Santoro.
- 2C9. Numerical study of stability of ultra high-beta equilibria. V. Drozdov, J. Manickam, L. Zakharov, and S. Cowley.
- 2C10. The validity of the extended energy principle. J. L. Johnson, R. M. Kulsrud, and M. S. Chance.
- 2C11. Ideal MHD analysis of single-divertor configurations in ITER. J. Manickam, D. A. Monticello, and M. W. Phillips.
- 2C12. Use of the PIES MHD equilibrium code for stellarator studies. D. A. Monticello, J. L. Johnson, and A. H. Reiman.
- 2C13. Study of effect of plasma rotation on external modes in tokamaks using the Princeton MH3D code. N. Pomphrey, W. Park, and D. J. Ward.
- 2C14. Linear and quasilinear analysis of toroidal drift modes in high-power TFTR DT shots. G. Rewoldt and W. Tang.
- 2C15. DEGAS modeling of the H-alpha spectrum on TFTR. D. P. Stotler, C. H. Skinner, R. Budny, H. Adler, and A. T. Ramsey.
- 2C16. Selfconsistent study of alpha-particle driven TAE mode. Y. Wu and R. B. White.
- 2C17. Rotating magnetic islands in a tokamak with applied resonant magnetic perturbations. A. I. Smolyakov, E. Lazzaro, J. D. Callen, and G. Re.
- 2C18. Study of sawtooth-stabilization on TFTR. Y. Zhao and R. B. White.
- 2C19. Gyrokinetic Vlasov simulation of eta-i modes. Q. P. Liu and C. Z. Cheng.
- 2C20. The effects of artificial hyper-viscosity and hyper-resistivity in MHD simulations of RFPs. C. R. Sovinec and D. D. Schnack.
- 2C21. Nonlinear frequency shifts in trapped electron driven drift wave turbulence. A. S. Ware and P. W. Terry.
- 2C22. Advanced tokamak scenarios in ITER and TPX. W. M. Nevins, J. Manickam, L. D. Pearlstein, R. H. Bulmer, and S. Haney.

- 2C23. Theory issues for TPX. R. J. Goldston and W. M. Nevins.
- 2C24. The direct criterion of Newcomb for the stability of an axisymmetric toroidal plasma. A. H. Glasser.
- 2C25. Psi-version of the DCON stability code. L. Zakharov and V. Drozdov.
- 2C26. Inertial-electrostatic confinement studies. T. N. Tiouririne, R. A. Nebel, D. C. Barnes, L. Turner, J. M. Finn, W. D. Nystrom, G. H. Miley, J. Javedani, and A. Satsangi.
- 2C27. Implementation of the quiet implicit PIC method in toroidal geometry. W. D. Nystrom, D. C. Barnes, and R. A. Nebel.
- 2C28. Penning fusion experiment and higher order multipoles--design, theory, and scaling. D. C. Barnes, T. N. Tiouririne, L. Turner, and R. A. Nebel.
- 2C29. Generalized two stream instabilities in Penning traps. L. Turner and J. M. Finn.
- 2C30. Rotation generation and damping mechanisms in tokamaks. J. M. Finn.
- 2C31. Comparison of fluid and non-fluid neutral models in divertor plasma transport simulations. K. A. Werley and R. Maingi.
- 2C32. New stellarator reactor concepts. J. A. Rome.
- 2C33. The performance of fluid codes on a dedicated Cray Y-MP C90. V. E. Lynch, B. A. Carreras, J. N. Leboeuf, and B. C. Curtis.
- 2C34. Parallel ion flow gradient-driven instability and the L-H transition. L. A. Charlton, B. A. Carreras, V. E. Lynch, and P. H. Diamond.
- 2C35. Full-wave ICRF modeling of electron heating and current drive by mode converted slow waves in tokamaks. E. F. Jaeger, M. Murakami, C. Y. Wang, D. B. Batchelor, R. Majeski, C. K. Phillips, and J. R. Wilson.
- 2C36. 3D modeling of RF current drive arrays. M. D. Carter, D. B. Batchelor, T. S. Bigelow, G. L. Bell, and D. J. Hoffman.
- 2C37. The dynamics of front-like and uniform transitions from L to H or VH modes. D. E. Newman, B. A. Carreras, and P. H. Diamond.
- 2C38. Fast wave poloidal flow generation in a plasma. C. Y. Wang, E. F. Jaeger, D. B. Batchelor, and K. L. Sidikman.
- 2C39. Nonlinear calculations of dissipative trapped electron modes with ion magnetic drift. K. L. Sidikman, C. L. Hedrick, and J. N. Leboeuf.
- 2C40. Shock formation in poloidally rotating helically symmetric plasmas. M. Wakatani and K. C. Shaing.
- 2C41. Effects of orbit squeezing on poloidal mass flow and bootstrap current in tokamak plasmas. K. C. Shaing, C. T. Hsu, and R. D. Hazeltine.
- 2C42. A high density, low temperature ignition regime for ITER. W. A. Houlberg and S. E. Attenberger.
- 2C43. Fitting eigenfunctions and suppressing noise in a Landau fluid approach to dissipative trapped electron modes. C. L. Hedrick, J. N. Leboeuf, and K. L. Sidikman.
- 2C44. Excitation of TAE/GAE shear Alfvén modes by an energetic alpha population in the TFTR DT experiments. D. A. Spong, C. L. Hedrick, and B. A. Carreras.
- 2C45. Toroidal Alfvén eigenmode growth and particle transport. M. Chu, C. Z. Cheng, and C. T. Hsu.
- 2C46. Effect of orbit squeezing on poloidal rotation in tokamaks. F. L. Hinton and Y-B. Kim.
- 2C47. Thermal runaway and momentum and energy transport by fast ions. Y-B. Kim and F. L. Hinton.
- 2C48. Channeling energy from alpha particles into RF waves in a reactor plasma. K. Kupfer, S. C. Chiu, and V. S. Chan.

- 2C49. New enhanced confinement modes predicted by a flow shear suppression model. G. M. Staebler, F. L. Hinton, and J. C. Wiley.
- 2C50. Shear flow generated by radiofrequency forces across resonant layers. V. S. Chan and S. C. Chiu.
- 2C51. Resonant and non-resonant effects due to RF. S. C. Chiu and V. S. Chan.
- 2C52. Electron cyclotron current drive for ITER. R. W. Harvey, W. M. Nevins, and G. R. Smith.
- 2C53. Incorporation of the NFREYA neutral-beam heating package into the EFIT equilibrium analysis code. B. J. Lee and L. L. Lao.
- 2C54. Stability of the internal kink mode with energetic circulating ions. R. Betti and J. P. Freidberg.

TUESDAY EVENING

RECEPTION - Regency Ballroom Foyer
6:00pm - 7:00pm

2E ORAL SESSION - Regency Ballroom
7:00pm - 9:00pm
Presiding: M. Chu

- 2E1. Small scale magnetic flux averaged magnetohydrodynamics. D. Pfirsch and R. N. Sudan.
- 2E2. Shear flow effects on low-frequency drift-type tokamak microinstabilities. M. Artun.
- 2E3. Nonlinear collisionless magnetic reconnection. F. Porcelli and M. Ottaviani.
- 2E4. Anomalous thermalization of fast ions in magnetized plasma due to two-gyro-stream instability. K. R. Chen, D. B. Batchelor, J. N. Leboeuf, V. Wong, and W. Horton.

WEDNESDAY MORNING

3A REVIEW TALK - Regency Ballroom
8:30am - 9:20am
Presiding: J. Van Dam

- 3A1. Collapse, intensification and reconnection in vortex dominated flows: visometrics and modeling. N. Zabusky.

3B ORAL SESSION - Regency Ballroom
9:30am - 10:30am
Presiding: J. Van Dam

- 3B1. Nonlinear simulation of the current diffusive interchange mode. M. Yagi, K. Itoh, S. I. Itoh, A. Fukuyama, and M. Azumi.
3B2. Predictive transport modeling. D. Boucher and J. Wesley.

3C POSTER SESSION - Regency Ballroom
10:30am - 12:30pm

- 3C1. Spectral estimation of plasma fluctuations II: nonstationary analysis of ELM spectra. A. Sidorenko, K. S. Riedel, N. Bretz, and D. J. Thomson.
3C2. Anomalous kinetics of particles in the ergodic layer. S. S. Abdullaev and G. M. Zaslavsky.
3C3. Pseudo-spectrum of the resistive MHD operator: resolving the resistive Alfvén paradox. D. Borba, K. S. Riedel, W. Kerner, G. T. A. Huysmans, M. Ottaviani, and P. J. Schmid.
3C4. Radiating edge plasma studies for ITER and TPX. B. Braams and D. Rayevski.
3C5. Convective drift-acoustic instabilities in the presence of sheared flows. F. L. Waelbroeck, J. Q. Dong, W. Horton, and P. N. Yushmanov.
3C6. Empirical models of plasma profiles and transport: a hierarchy of models. K. Imre, K. S. Riedel, and B. Schunke.
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