2007 Publications

Book Chapters:

M. Shats and H. Xia
Spectral transfer analysis in plasma

Refereed Journal Articles:

T. Hatae, J. Howard, Y. Hirano, O. Naito, M. Nakatsuka and H. Yoshida
Development of polarization interferometer based on Fourier transform spectroscopy for Thomson scattering diagnostics

J. Howard, F. Glass and C. Michael
Doppler spectroscopy and tomography of plasmas

Y. Nakano, S. Ohshima, K. Itoh, M. Shats and H. Xia
Experimental progress on zonal flow physics in toroidal plasmas

Observation of magnetohydrodynamic instabilities in Heliotron J plasmas
Fusion Science and Technology 51 (2007) 92-96

Physical model assessment of the energy confinement time scaling in stellarators
Nuclear Fusion, 47 (2007) 1265-1273

P. Linardakis and G. Borg
Small-signal impedance of a radio frequency plasma capacitor
IEEE Microwave and zless Components Letters, 17 (2007) 763-765

M. Shats, H. Xia, H. Punzmann and G. Falkovich
Suppression of turbulence by self-generated and imposed mean flows

G. Warr, R. Tarrant, M. Bilek, D.R. McKenzie, J.H. Harris, J. Howard and B. Blackwell
Tomographic interferometry of a filtered high-current vacuum arc plasma
Kumar, S., Blackwell, B. and Harris, J.
Wire tomography in the H-1NF Heliac for investigation of fine structure of magnetic islands

Anderson, M., Shi, Z., Reed, M. and Borg, G.
On iterative receivers with channel estimation for serially concatenated CPM
IEEE Inc, 8th Australian Communications Theory Workshop (AusCTW 07) 39-46

Invited Presentations

B.D. Blackwell
Alfvén range instabilities in H-1
16th International Stellarator Workshop, Toki, Japan, October 2007

M.G. Shats
Suppression of turbulence by mean flows in two-dimensional fluids
16th International Stellarator Workshop, Toki, Japan, October 2007

J. Howard
Current profile diagnostics for burning plasmas
International conference on burning plasma diagnostics, Piero Caldiori, Varenna, Italy, August, 2007

M.G. Shats
Shear suppression of turbulence in two-dimensional fluids
Joint Conference of the 17th International Toki Conference and 16th International Stellarator/Heliotron Workshop, October15-19, Toki, Japan
H-1NF Annual Report: 2007 17

M.G. Shats
Quasi-two-dimensional turbulence in the presence of mean flows
Turbulence and Mixing Workshop, Eilat, Israel, November 3-8 2007

Associated Publications including ITER Forum Collaborators

D. R. Austin, M.J. Hole, Robinson, P.A., Cairns I.H. and Dallaqua, R.
Laboratory evidence for stochastic plasma-wave growth

S.R. Hudson, M.J. Hole and R.L. Dewar
Eigenvalue problems for Beltrami fields arising in a three-dimensional toroidal magnetohydrodynamic equilibrium problem

Physics of Plasmas, 14 (2007) 052505 1-12

M.J. Hole, S.R. Hudson and R.L. Dewar
Equilibria and stability in partially relaxed plasma–vacuum systems
Nuclear Fusion, 47 (2007) 746-753

M.J. Hole and L.C. Appel
Fourier decomposition of magnetic perturbations in toroidal plasmas using singular value decomposition
Other Publications

M. Shats
*Turbulent problems for fusion energy*
*Australasian Science, 28 (2007) 33-36*