

## C5 2007 Publications

Part of the work of the Association has appeared (or, have been accepted for publication) in scientific journals and conference proceedings during year 2007. These publications are presented in the following list (in alphabetical order, by the name of the first author, with underlined the names of personnel affiliated with the Research Unit): [cialis professional](#) [viagra wirkung](#)  
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1. K. A. Avramides, I. Gr. Pagonakis, B. Piosczyk, and J. L. Vomvroidis, “*Possible excitation of radial satellites in high-power gyrotrons*”, Joint 32nd Int. Conf. Infrared Millimeter Waves and 15th Int. Conf. THz Electronics, Cardiff, UK, 3-7 September 2007, Conference Proceedings, 700 (2007).
2. G. Breyiannis, S. Varoutis, and D. Valougeorgis, “*Rarefied gas flow in concentric annular tube: Estimation of the Poiseuille number and the exact hydraulic diameter*”, European J. Mechanics B/Fluids (in print, 2008).
3. O. Dumbrajs, Z. C. Ioannidis, and I. G. Tigelis, “*Wideband continuous frequency tunable coaxial gyrotron oscillators*”, Joint 32nd Int. Conf. Infrared Millimeter Waves and 15th Int. Conf. THz Electronics, 3-7 September 2007, Cardiff, UK, Conference Proceedings, 583 (2007).
4. O. Dumbrajs, K. A. Avramides, and B. Piosczyk, “*Mode Competition in the 170 GHz Coaxial Gyrotron Cavity for ITER*”, Joint 32nd Int. Conf. Infrared Millimeter Waves and 15th Int. Conf. THz Electronics, 3-7 September 2007, Cardiff, UK, Conference Proceedings, 48 (2007).
5. E.A. Evangelidis and G.J.J. Botha, “*The equilibrium equation in skew configurations*”, Proc. 34th EPS Conf. on Plasma Physics (Warsaw), P4 (2007).
6. D. Fidaros, L. Buhler, A. Grecos, and N. Vlachos, “*Numerical modelling of rotating tangential layers (jets) in shells under strong uniform magnetic field*”, Intl J. for Numerical Methods in Fluids (Accepted with revision, 2007).
7. S. Kakarantzas, A. Grecos, N. Vlachos, I. Sarris, B. Knaepen, and D. Carati, “*Direct numerical simulation of an efficient configuration for fusion heat removal blankets*”. Energy Management & Conversion **48**, 2775 (2007).

8. S. C. Kassinos, B. Knaepen, and D. Carati, “*The transport of a passive scalar in MHD turbulence subjected to mean shear and frame rotation*,” *Physics of Fluids*, **19**, 015105 (2007).
9. S. C. Kassinos, “*Towards a structure-based model for the prediction of passive scalar transport in hydrodynamic and MHD turbulence sheared in fixed and rotating frames*,” *Proceedings of the 5th International Symposium on Turbulence and Shear Flow Phenomena*, TU Munich Germany, 27-29 August 2007.
10. Y. Kominis, K. Hizanidis, D. Constantinescu, and O. Dumbrajs, “*Explicit near-symplectic mappings of Hamiltonian systems with Lie generating functions*”, *J. Phys. A: Math. Theor.* **41**, 115202 (2008).
11. Y. Kominis, “*Nonlinear theory of cyclotron resonant wave-particle interactions: Analytical results beyond the quasilinear approximation*”, *Phys. Rev. E* **77**, 016404 (2008).
12. P. Lalousis, L. L Lengyel, and R. Schneider, “*Effect of electron thermal conductivity on the state parameter distributions in the wake of a pellet*”, *Proc. 34th EPS Conf. on Plasma Physics (Warsaw)*, P4.097 (2007).
13. G. P. Latsas, I. G. Tigelis, and J. L. Vomvroidis, “*Dispersion characteristics of TE waves in beam-loaded corrugated waveguides with losses*”, *Joint 32nd Int. Conf. Infrared Millimeter Waves and 15th Int. Conf. THz Electronics*, 3-7 September 2007, Cardiff, UK Conference Proceedings, 692 (2007).
14. J. Lihnaropoulos, S. Naris, and D. Valougeorgis, “*Formulation and stability analysis of rapidly convergent iteration schemes for 2D discrete velocity calculations*”, *Transp. Theory & Stat. Phys.* **36**, 513 (2007).
15. K. Mergia and N. Boukos, “*Structural, thermal, electrical and magnetic properties of Eurofer97 steel*”, *Journal of Nuclear Materials* **373**, 1 (2008).
16. S. Naris and D. Valougeorgis, “*Rarefied gas flow in a triangular duct based on a boundary fitted lattice*”, *European Journal of Mechanics B/Fluids* (in print, 2008).

17. I. Gr. Pagonakis, J.-P. Hogge, S. Alberti, K. A. Avramides, and J. L. Vomvouridis, “A new concept for the collection of an electron beam guided by an externally applied magnetic field”,  
Joint 32nd Int. Conf. Infrared Millimeter Waves and 15th Int. Conf. THz Electronics, Cardiff, UK, 3-7 September 2007, Conference Digest, 704 (2007).
18. I. Gr. Pagonakis, J.-P. Hogge, S. Alberti, K. A. Avramides, and J. L. Vomvouridis, “A new concept for the collection of an electron beam configured by an externally applied axial magnetic field”,  
IEEE Trans. Plasma Sci.  
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19. A.G.Peeters, C. Angioni and D. Strintzi, “Toroidal momentum pinch velocity due to the Coriolis Drift Effect on Small Scale Instabilities in a Toroidal Plasma”,  
Physical Review Letters  
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20. A. G. Peeters and D. Strintzi, “The Fokker-Planck equation and its application in plasma physics”, Ann. Phys. (Berlin) **17**, No. 2-3, 142-157 (2008).
21. D. Rouson, S. C. Kassinos, I. Moulitsas, I. Sarris, and X. Xu, “Dispersed-phase structural anisotropy in homogeneous magnetohydrodynamic turbulence at low magnetic Reynolds number”,  
Physics of Fluids  
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22. I. Sandberg, H. Isliker, and V. P. Pavlenko, “Finite Larmor Radius Effects on the Coupled Trapped Electron and Ion Temperature Gradient Modes”, Physics of Plasmas  
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23. I. E. Sarris, S. C. Kassinos, and D. Carati, “Large-eddy simulations of the turbulent Hartmann flow close to the transitional regime”, Physics of Fluids  
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24. I. E. Sarris, H. Jeanmart, D. Carati, and G. Winckelmans, “Box-size dependence and breaking of translational invariance in the velocity statistics computed from three-dimensional

*turbulent Kolmogorov flows* ”

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25. D. Srintzi and F. Jenko, “*On the relation between secondary and modulational instabilities* ”, Physics of Plasmas **14**, 042305 (2007).

26. H. Tasso and G. N. Throumoulopoulos, “*On the Vlasov approach to tokamak equilibria with flow* ”, J. Phys. A: Math.Theor. **40**, F631 (2007).

27. H. Tasso and G. N. Throumoulopoulos, “*On the existence of resistive magnetohydrodynamic equilibria* ”, 12th European Fusion Theory Conference, Madrid 2007 P2-12; also, Journal of Plasma Physics **73**

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28. G. N. Throumoulopoulos, H. Tasso, G. Poulipoulis, “*Side conditioned axisymmetric equilibria with incompressible flow* ”

, 12th European Fusion Theory Conference, Madrid 2007 P2-13; also, Journal of Plasma Physics (available on line; in print, 2008).

29. G. N. Throumoulopoulos, H. Tasso, “*A sufficient condition for the linear stability of magnetohydrodynamic equilibria with flows* ”, Physics of Plasmas

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30. C. Tsironis, T. Samaras, and L. Vlahos, “*Scattered-field FDTD algorithm for hot anisotropic plasma with application to EC heating* ”,

IEEE Transactions on Antennas and Propagation (in print, 2008).

31. S. Varoutis, O. Sazhin, D. Valougeorgis, and F. Sharipov, “*Rarefied gas flow through short tubes into vacuum* ”,

Journal of Vacuum Science and Technology

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