

WPI Programme 2011

Workshop “Vlasov-Maxwell kinetics: theory, simulations and observations in space plasmas.”
[Responsible organiser: Califano; co-organizer: F. Valentini]

March 28 - April 1 http://www.df.unipi.it/~califano/Vlasov_W/Vlasov_workshop.html

Tuesday March 29, start 9.30

- A. Retinò:** Observations of magnetic reconnection in solar system plasmas
- J. Araneda:** Alfvén-cyclotron wave mode structure: linear and nonlinear behaviour cascade.
- O. Alexandrova:** Observations of solar wind turbulence at plasma kinetic scales
- F. Valentini:** Electrostatic fluctuations at short scales in the solar-wind turbulent cascade.
- L. Matteini:** Wave-particle and wave-wave interactions in the solar wind: simulations and observations
- S. Bourouaine:** Ion kinetics and turbulence dissipation in the solar wind
- D. Perrone:** Nonlinear study of solar wind alpha particles heating with hybrid Vlasov numerical simulations

Wednesday March 30, start 9.30

- F. Pegoraro:** Fluid versus kinetic: gains versus losses
- P.L. Sulem:** Modeling space plasma turbulence at the ion gyroscale
- T. Passot:** Fluid modeling of anisotropic heating and micro-instabilities in space plasmas
- F. Califano:** Kelvin Helmholtz driven dynamics at the Earth’s Magnetosphere
- M. Faganello:** 3D equilibria of interest for the low latitude Earth’s Magnetosphere
- D. Del Sarto:** Pressure Tensor in a fluid model

Thursday March 31, start 9.30

- F. Jenko:** Gyrokinetics - an efficient framework for studying turbulence and reconnection in magnetized plasmas
- A. Shekochihin:** Turbulence in a magnetised plasma: success and failures of kinetic theory and the known unknowns
- G. Lapenta:** Meeting the challenge of multiscale modelling in high performance computing
- A. Ghizzo:** A multi-stream Vlasov model for Weibel-type instabilities in the relativistic regime
- T. Tatsuno:** Phase-space turbulence in 2D magnetized plasma using gyrokinetics

N. Tronko: Dynamical reduction of the Maxwell-Vlasov system: toward gyrokinetics

M. Kunz: Dynamical stability of a thermally stratified intracluster medium

LIST OF PARTICIPANTS

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