

Verification of Kinetic and Gyrokinetic Codes, 8 to 10 April 2014 Programme

Tuesday, 8 April 2014

- 8:30 Registration at IPP Building D2, ground floor
9:00 Eric Sonnendrücker
Presentation of the workshop
9:15 Nicolas Besse
Gyrowaterbag models of ion-temperature-gradient instability
9:50 Discussion
10:15 Tobias Görler
Self-consistent treatment of electromagnetic effects in gyrokinetics
10:50 Discussion
11:00 Coffee Break
11:20 Natalia Tronko
Hamiltonian second order derivations of gyrokinetic theory
11:55 Discussion
12:30 Lunch break and discussions in small groups

14:00 Bedros Afeyan
Resonant interactions between KEEN waves and Electron Plasma Waves in Vlasov-Poisson and Vlasov-Maxwell simulations
14:35 Discussion
15:00 Virginie Grandgirard
GYSELA a global full-f semi-Lagrangian code for ITG turbulence : Conservation law properties ?
15:35 Discussion
16:00 Coffee Break
16:20 Klaus Hallatschek
Collision operator and splitting errors for edge parameters
16:55 Discussion

19:00 **Dinner at Restaurant „Rondell“ at Garching, Bürgerplatz 9 (just outside metro station Garching)**

Wednesday, 9 April 2014

- 8:30 Yaman Güçlü
The plasma sheath problem for 1D-1V Vlasov-Poisson solvers
9:05 Discussion
9:30 Jingmei Qiu
High order maximum principle preserving semi-Lagrangian finite difference WENO schemes for the Vlasov equation
10:05 Discussion
10:30 Coffee Break
10:50 Andrew Greenwood
Interaction of electromagnetic fields and particles using Faraday rotation
11:25 Discussion

- 11:50 Patrick Kilian
Plasma waves as a benchmark problem
- 12:25 Discussion
- 12:50 Lunch break and discussions in small groups
- 14:00 Alessandro Biancalani
Linear collisionless dynamics of axisymmetric modes in tokamaks with GK PIC code NEMORB
- 14:35 Discussion
- 15:00 Ralf Kleiber
Gyrokinetic particle-in-cell simulations with EUTERPE
- 15:35 Discussion
- 16:00 Coffee Break
- 16:20 Gabriele Merlo
Proposal for gyrokinetic benchmark
- 16:55 Discussion

Thursday, 10 April 2014

- 9:00 Discussion in breakout groups
- 10:30 Coffee Break
- 10:50 Discussion in breakout groups
- 11:50 Lunch break and discussions in small groups
- 14:00 Summary of discussions and proposed benchmarks for gyrokinetic codes
- 15:00 Summary of discussions and proposed benchmarks for kinetic codes
- 16:00 End of workshop. Possibility of continuing discussions in small groups