

CEMRACS courses 2010

December 18, 2009

1. Gyrokinetic equations
2. δf / full- f
3. Local / global
4. Fixed gradient / flux driven systems
5. Kinetic electrons
6. Choice of the coordinates
 - Aligned coordinates
7. PIC approach
8. Eulerian approach
9. Semi-Lagrangian approach
10. Applications to simple cases (ex : Berk-Breizmann)
 - Linearized equations
 - Conservation laws
 - Quality criteria (not only L_1 , L_2 and L_{inf} norms)
11. Gyroaverage operator
12. Quasi-neutrality equations
13. Global time algorithm
14. Electromagnetic simulations