

**PA 201 : Physique**  
**V3B : Physique des Plasmas**

A. Flacco

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# Programme

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- 24 jan Plasma state and plasma parameter. On the concept of temperature. Debye screening, plasma frequency. Single particle motions.
- 31 jan Single particle motion. Plasma confinement. Exercises
- 7 fév Kinetic theory I: equation de Vlasov
- 21 fév Kinetic theory II: fluid equations
- 28 fév Waves in plasmas. Electromagnetic waves dispersion.
- 7 mar Longitudinal waves in plasmas. Landau damping.
- 14 mar *Côntrole de connaissances*



Reference textbooks:

F. Chen, **Introduction to Plasma Physics and Controlled Fusion** (KA/PP)

J.-M. Rax, **Physique des Plasmas** (Collection Sciences Sup., Paris 2005)

Course material: <http://yvette.ensta.fr/~flacco/pa201.html>