

**Postgraduate Diploma Course in Condensed Matter Physics  
2015-2016**

**Advanced Statistical Mechanics (CMP-ASM)  
(12 lectures = 18 hrs)**

1. Summary of Thermodynamics
2. Statistical basis of Thermodynamics
3. Elements of ensemble theory
4. Canonical ensemble
5. Grand canonical ensemble
6. Quantum statistics
7. Simple gases
8. Bose statistics
9. Fermi statistics
10. Cluster expansion