

## Suggested Topics

1. Supersymmetry: the suggested references are
  - Pokorski chapter 15;
  - G. Ross, “Grand Unified Theories”, chapter 8.
2. Chiral Lagrangians: the suggested references are
  - Pokorski chapter 14;
  - Weinberg, chapter 19.
3. Solitons whose basic reference is
  - Coleman, “Aspects of Symmetry”, chapter 6.
4. Instantons whose basic reference is
  - Coleman, “Aspects of Symmetry”, chapter 7.
5. The  $1/N$  approximation whose basic reference is
  - Coleman, “Aspects of Symmetry”, chapter 8.
6. Axions and the strong CP problem: the suggested references are
  - Weinberg section 23.6;
  - Donoghue, Golowich and Holstein, “Dynamics of the Standard Model”, chapter 3.
7. Field Theory at Finite Temperature and Phase Transitions: the basic reference is
  - Rivers, “Path Integral methods in QFT”, chapter 14.
8. RGE and Critical Phenomena: the suggested references are
  - Peskin and Schroeder chapter 13;
  - E. Brézin in the proceedings of the 1975 Les Houches School.