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Nonabelian Quantum Field Theory
University of Oxford, Theoretical Physics
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Synopsis

- I Path integrals in quantum mechanics
and scalar field theory
- II Spinor fields
- III Gauge symmetries
- IV Quantization of gauge theories
- V Renormalization
- VI Renormalization group
- VII S-matrix theory and applications
- VIII Anomalies
- IX Spontaneous breaking of gauge symmetries

Recommended reading

- M. Peskin and D. Schroeder, Introduction to quantum field theory, Perseus Books
- D. Bailin and A. Love, Introduction to gauge field theory, IoP, Bristol
- G. Sterman, Introduction to quantum field theory, Cambridge University Press
- M. Srednicki, Quantum field theory, Cambridge University Press
- V.N. Gribov, Gribov lectures in theoretical physics, Cambridge University Press
- J.C. Taylor, Gauge theory of electroweak interactions, Cambridge University Press
- T. Cheng and L. Li, Gauge theories of elementary particle physics, Clarendon, Oxford
- M. Stone, The physics of quantum fields, Springer
- Lectures notes on QFT:
K.M. Hamilton and J.F. Wheeler,
<http://arXiv.org/pdf/hep-ph/0310065>.
Lectures by J.F.W. at Oxford University