

Physics 331 - Quantum Field Theory 2

General Information

course meeting:	M W 11:30 – 12:50, in Hewlett 102
Professor	Michael E. Peskin SLAC, building 48, room 221 926-3250 Varian 320 (Mondays, or by appointment) mpeskin@slac.stanford.edu
Course Assistant:	Chao Wang McCullough 327 office hours: McCullough 332, Tu 2:30 – 4:30 cwang15@stanford.edu
Textbook:	M. E. Peskin and D. V. Schroeder, <i>An Introduction to Quantum Field Theory</i>

Matthew Schwartz's textbook was used in QFT 1. If you like the approach of this book, do not feel obliged to buy a new book for QFT 2. Schwartz covers all of the material in QFT 2. However, if you need to have a textbook that follows the arguments in the lectures closely (or vice versa), you will want to acquire Peskin & Schroeder.

Course Web page: [www.slac.stanford.edu/~mpeskin/Physics 331/](http://www.slac.stanford.edu/~mpeskin/Physics_331/)

The course syllabus and all problem sets and solutions will be posted on this web page. The web page also has a supplementary reading list and other useful materials.

Brief course outline:

- Functional integral approach to quantum field theory
- One-loop divergences of Quantum Electrodynamics
- Non-Abelian gauge theories
- Quantum Chromodynamics
- Spontaneous symmetry breaking and the Higgs mechanism