

Physics 131

Spring 2009

Particle Physics Seminar #11

Textbook: Griffiths - Introduction to Elementary Particles

Website: (all notes referred to below are on web site)

http://chaos.swarthmore.edu/courses/Phys093_2009/index.html

Readings:

REQUIRED: Griffiths - Chapter - 7
08-QFT5

Topic(s):

(1) Quantum Electrodynamics

Professor Lecture Topic(s): Quantum Field Theory

Problems:

1. Griffiths 7-18 Electron at rest
2. Griffiths 7-23 Gauge invariance
3. Griffiths 7-24 Completeness relations
4. Griffiths 7-26 Electron-muon scattering
5. Griffiths 7-27 Pair annihilation
6. Griffiths 7-30 Casimir Trick
7. Griffiths 7-31 Trace theorems
8. Griffiths 7-35 Levi-Kronecker relations
9. Griffiths 7-36 Some traces
10. Griffiths 7-37 Elastic electron-electron scattering