



**Textbook:** The course will not follow a single text book, and you are not required to buy a book. Where possible, relevant reading material will be provided during the semester.

- Peskin, *Concepts of Elementary Particle Physics*, PY751 book, includes PY752 topics.
- Halzen and Martin, *Quarks and Leptons: An Introductory Course in Modern Particle Physics*, nice text.
- Barger and Phillips, *Collider Physics*, the classic in collider physics.
- Quigg, *Gauge Theories of the Strong, Weak, and Electromagnetic Interactions*.
- Kane, *Modern Elementary Particle Physics*.
- Langacker *The Standard Model and Beyond*, more modern topics.
- Peskin and Schroeder, *Quantum Field Theory*, contains a lot of the material we will cover but at a more rigorous mathematical level (more Quantum Field Theory).
- Ryder, *Quantum Field Theory*, another QFT book, more basic than Peskin and Schroeder.
- Perkins, *Introduction to High Energy Physics*, a classic PY551 textbook.
- Ramond, *Journeys beyond the Standard Model*.

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