Syllabus PHYS 417/517: Quantum Mechanics
- Subject: How Quantum Mechanics is done in practice. This requires some abstract mathematics, complex numbers, differential equations, and linear algebra (there is an Appendix in the textbook on linear algebra). Builds on PHYS 414 and 415!
- Instructor: S.J. van Enk, 251 Wil, svanenk@uoregon.edu
- Office hours: Wednesdays, 10.30am-11.30am and 3.00pm-4.00pm. However, I have an open door policy and you can ask me questions at any time about anything.
- TA: Young-Shin Park, 272B Wil, ypark1@uoregon.edu
- Textbook: D. J. Griffiths, Introduction to Quantum Mechanics, second edition. We will discuss parts of Chapters 9, 10, and 12 this term, plus notes about mixed and pure states.
- Some other books:
  - at the same level: Feynman, Feynman’s Lectures on Physics, Vol. 3 (many words, different approach).
  - for worked out problems: Schaum’s Outline of Quantum Mechanics. Beware of mistakes!
  - at a lower level: French and Taylor, Introduction to QM (lots of words);
  - at a higher level: Sakurai, Modern Quantum Mechanics (used in the graduate course at the UO); Mandl, Quantum Mechanics.
- Homework: Due every Thursday, except in the weeks of the Quiz & Midterm. Late homework (handed in before the weekend) counts for 75%. Your lowest homework score will be dropped.
- Grading: Quiz (10%) [tentatively, Tuesday, April 28th], Midterm (20%), Final (30%), Homework (40%). I will not curve any individual homework score, quiz score, midterm score, but I do curve the final grade. If the scores are reasonable, the average score will correspond to a B or B+, a bit more than one standard deviation above (below) will be an A (C).
- Blackboard: I use two parts of blackboard: course information (announcements, statistics on homework/quiz/midterm scores: averages and standard deviations) and course documents (solutions to problems, articles related to material)