Physics 566 Problem Set #7
Reading: CP Chapters 9
Available March 28th
Due April 5th

Please follow the guidance of last week and, like before, please turn in (by attachment in the Sakai assignment) both a PDF exported version of the notebook and the .ipynb file itself. If you need to work out new equations etc for the problem, please use LaTeX formatting to show what you did in your answers.

Please spend time working on your projects this week.

(1) **9.2** Speeding up the relaxation method.

(2) **9.3** Solving Poisson's equation.

(3) **9.4** Flow of heat in the Earth's crust.

(4) **9.5 a)** Instead of making a movie like in part b) make three snapshot figures at 2 ms, 50 ms, and 100 ms. Basically, you should reproduce the plots in Figure 9.7 in the book on page 427.

(5) **9.9 a and b** The Schrodinger equation using spectral methods. You could also make some snapshots graphs at later times to understand what happens to the particle.