

**Homework #5**  
due Monday, March 19<sup>th</sup>, 2012

**Problems:**

1. Nishimura 7.1
2. Nishimura 7.4
3. Nishimura 7.5
4. Nishimura 7.6 (a) (b)
5. **Extra Credit:** Run `SpinBench`, and load the example file called `Spin Echo`.
  - (a) Upgrade it to a double-spin echo sequence (90 - 180 - echo #1 - 180 - echo #2). Control the sequence using two `Time Intervals`. *Hint: one can represent the period from the excitation to the first echo, and one can represent the period from the first echo to the second echo.*
  - (b) Describe any interesting behavior that occurs when  $T_2 < TE$ ? and when  $T_1 < TE$ ? Submit screen-capture images for both cases.