ASTRONOMY 252

Assignment 8 Spring 2006

DEATH OF MASSIVE STARS

GOALS:  - To learn about the death of massive stars.
         - To learn about supernovae.
         - To learn about neutron stars, including neutron degeneracy.
         - To learn about pulsars, rapidly rotating neutron stars.
         - To be introduced to some of the properties of general relativity, including curved space, principle of equivalence, tests of GR.
         - To learn about the properties of black holes.

DUE:  Wednesday, March 29, 2006

READ:  Chapters 11 and 8 (read 8.1-8.3, study 8.4)

HOMEWORK:  (Sign the honor code at the end)

1. 11.1  [SN explosion]
2. 11.5  [neutron star forces]
3. 11.7  [escape velocity]
4. 11.12  [pulsar spin-down]
5. 11.13  [pulsar]
6. 8.3  [grav. redshift]
7. 8.5  [Schwarzschild radius]
8. 8.7  [Black hole]

Review session:  2:30-3:30 pm Tuesday March 28, in NSC 118.

Office hours:  11-12 am Tuesday and Thursday.

Adjust class time:  Instead of regular time next Friday:
   (1) Friday morning 8:00-8:50 am
   (2) Thursday evening 7:30-8:20 pm
   (3) Tuesday evening, 7:30-8:20 pm