

NAME: _____

ASTR109/PHYS109: 2008

HOMEWORK SHEET #9

Due 1.00 pm, Thursday Oct 9 2008

Bring to lecture or tutorial or leave with the Rosalie in room 705, Physics and Astronomy

1. How is it possible to estimate the size of the dust particles in interstellar space?
2. Find (from lectures, textbook, web) the shape and size of Our Galaxy: sketch and give sizes in parsecs.
3. What *observations* would you make and of what object/s (so explain what you would, in principle, do) to measure the velocity of rotation of a distant spiral galaxy?
4. Write an account of the Cosmic Microwave Background Radiation:
How is it detected? What is it? Explain why it is necessary to sample this radiation from a satellite (rather than from just the Earth's surface) to obtain full information about it.

