Distance scale. Galaxies course

We will discuss the following distance estimators

1. Baade-Wesselink: Gijs & Monique

2. Gravitational lensing: Morten & Corine

3. Star S2 in the Galactic center (and distance to the Galactic center): Gergö & Tjitske

4. Luminosity function of planetary nebulae: Jouke & Maarten

5. Supernovae Ia (and determination of the cosmological constant): Richard & Annemieke

6. Tully-Fisher: Margriet & Rob

7. Surface brightness fluctuations: Aycin

Some references (but much material can also be found on the web)

1. Binney & Merrifield, Ch. 7, Sec.7.2.1

2. Binney & Merrifield, Ch. 7, Sec.7.2.3; Sparke & Gallagher, Ch.6 (end of Sec.6.5)

3. F. Eisenhauer, R. Schdel, R. Genzel, T. Ott, M. Tecza, R. Abuter, A. Eckart, and T. Alexander; "A Geometric Determination of the Distance to the Galactic Center", The Astrophysical Journal, volume 597, part 2 (2003), pages L121-L124

4. Binney & Merrifield, Ch. 7, Sec.7.3

5. A useful starting point: http://www.eso.org/ bleibund. Goto Popular Articles to find "A cosmological surprise: the universe accelerates".

6. Sparke & Gallagher, Ch. 5, Sec. 5.3.3.. Binney & Merrifield, Ch.7, Sec. 7.3.4

7. Sparke & Gallagher, Ch. 7, Sec. 7.1.. Binney & Merrifield, Ch.7, Sec. 7.3.5