Summer Semester 2018:

Master course Astrophysics II: Galaxies and Cosmology

Lecture 11, 26 Jun 2018: Structure and dynamics of galaxies I

> Responsible: Prof. Christoph Pfrommer, Prof. Lutz Wisotzki

University of Potsdam

Hubble scheme: Real Galaxies face-on / edge-on





M. Blanton / SDSS

Radial surface brightness profile of spiral galaxy IC 4566



Neumann 2014, Diplomarbeit UP

Vertical surface brightness profiles



(de Grijs et al. 1997)

Observed distribution of b/a for a sample of disc galaxies



(Lambas et al. 1992)

Distribution of galaxy properties in SDSS, after visual classification: dotted = spirals, filled red = ellipticals



Maller et al. 2009

Rotation curve of thin self-gravitating disc



Rotation curves of spiral galaxies



Rotation curve of the Milky Way

