

Presentation topics

Formation and Evolution of Galaxies 2017/2018

February 13, 2018

1. 27.02: The halo mass function: Press-Schechter theory (MBW Ch 7.2; Press & Schechter 1974, *ApJ* **187**, 425)
2. 27.02: Merger trees (MBW Ch 7.3; Lacey & Cole 1993, *MNRAS* **262**, 627; Fakhouri et al. 2010, *MNRAS* **406**, 2267)
3. 06.03: Extremely metal-poor stars (Frebel & Norris 2015, *ARA&A* **53**, 631)
4. 06.03: Stellar populations of dwarf galaxies (Tolstoy et al. 2009, *ARA&A* **47**, 371; McConnachie 2012, *MNRAS* **356**, 979)
5. 13.03: Young massive clusters (Portegies Zwart et al. 2010, *ARA&A* **48**, 431)
6. 20.03: The stellar initial mass function (MBW Ch. 9.6; Bastian et al. 2010, *ARA&A* **48**, 339)
7. 20.03: Control of star formation by supersonic turbulence (MBW Ch 9.3.2; Mac Low & Klessen 2004, *Rev. Modern Physics* **76**, 125)
8. 27.03: Observational tests, cooling flows (MBW Ch 8.8; Fabian 1994, *ARA&A* **32**, 277)
9. 17.04: Bulges & Pseudobulges (MBW Ch 11.5.4; Kormendy & Kennicutt 2004, *ARA&A* **42**, 603)
10. 17.04: Spiral structure (MBW Ch 11.6; Shu 2016, *ARA&A* **54**, 667)
11. 24.04: Solving the collisionless Boltzmann equation / Jeans equations; Application to elliptical galaxies
12. 24.04: The fundamental plane of elliptical Galaxies & Jackson-Faber Relation & applications of the relations
13. 08.05: Growth of SMBH/ sign for feedback, Evolution and formation of AGN
14. 15.05: linking halo mass to galaxy luminosity and star formation history
15. 29.05: Presentation of a recent semi-analytical model or full MHD simulations that directly include galaxies
16. 05.06: Ionization sources for the intergalactic medium
17. 05.06: Evolution of the intergalactic medium
18. 12.06: Lyman-alpha forest including models and Lyman limit systems

MBW = Galaxy Formation and Evolution (Mo, van den Bosch, White)

ARA&A = Annual Review of Astronomy and Astrophysics