

# Presentation topics, literature, & schedule

Formation and Evolution of Galaxies 2017/2018

February 16, 2018

1. 27.02: The halo mass function: Press-Schechter theory (MBW Ch 7.2; Press & Schechter 1974, ApJ **187**, 425) - [Joris Kersten](#)
2. 27.02: Merger trees (MBW Ch 7.3; Lacey & Cole 1993, MNRAS **262**, 627; Fakhouri et al. 2010, MNRAS **406**, 2267) - [Luc IJspeert](#)
3. 06.03: Extremely metal-poor stars (Frebel & Norris 2015, ARA&A **53**, 631) - [Michelle Wassink](#)
4. 06.03: Stellar populations of dwarf galaxies (Tolstoy et al. 2009, ARA&A **47**, 371; McConnachie 2012, MNRAS **356**, 979) - [Niek Gerfen](#)
5. 13.03: Young massive clusters (Portegies Zwart et al. 2010, ARA&A **48**, 431) - [Gerard Hillebrink](#)
6. 20.03: The stellar initial mass function (MBW Ch. 9.6; Bastian et al. 2010, ARA&A **48**, 339) - [Thomas Wijte](#)
7. 20.03: Control of star formation by supersonic turbulence (MBW Ch 9.3.2; Mac Low & Klessen 2004, Rev. Modern Physics **76**, 125) - [Godwin Krampah](#)
8. 27.03: Observational tests, cooling flows (MBW Ch 8.8; Fabian 1994, ARA&A **32**, 277) - [Sofia Athanasiadou](#)
9. 17.04: Bulges & Pseudobulges (MBW Ch 11.5.4; Kormendy & Kennicutt 2004, ARA&A **42**, 603) - [Patrick Willemsen](#)
10. 17.04: Spiral structure (MBW Ch 11.6; Shu 2016, ARA&A **54**, 667) - [Daniëlle Pieterse](#)
11. 24.04: Solving the collisionless Boltzmann equation / Jeans equations; Application to elliptical galaxies - [Olivér Boersma](#)
12. 24.04: The fundamental plane of elliptical Galaxies & Jackson-Faber Relation & applications of the relations - [Jeffrey van der Gucht](#)
13. 08.05: Growth of SMBH/ sign for feedback, Evolution and formation of AGN - [Rutger Jaspers](#)
14. 15.05: linking halo mass to galaxy luminosity and star formation history - [Gregory Spiliopoulos](#)
15. 29.05: Presentation of a recent semi-analytical model or full MHD simulations that directly include galaxies - [Maaike Mink](#) (TBC)

16. 05.06: Ionization sources for the intergalactic medium - [Anne Inkenhaag](#)
17. 05.06: Evolution of the intergalactic medium - [Jwalant Yagnik](#)
18. 12.06: Lyman-alpha forest including models and Lyman limit systems - [Craig Yanitski](#)
19. 12.06: TBD - [Stasia Shlentsova](#) (TBC)

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

ARA&A = Annual Review of Astronomy and Astrophysics

**Some general advice and guidelines:**

As we have 45 minutes reserved for the student presentations each week, the presentations should not be longer than about 20 minutes. As always, *practice* your presentation before giving it, to make sure that it fits within the allotted time.

Most of the book chapters and articles listed above contain much more information than you can cover in 20 minutes, so you will have to think carefully about what to include. Do not try to cover everything. Instead, concentrate on the most important point(s), and explain it in as much depth as possible in the time that you have available. Ask yourself what you would like your fellow students to learn from the presentation, and then concentrate on getting that message across.