

Suggested Reading for AOT 2019 by Lecture

- Books used to determine reading chapters/pages
 - *Observational Astrophysics*, 3rd edition, by Pierre Lena
 - *Astrophysical Techniques*, 6th edition, by C.R. Kitchen
- Some of the suggested readings are more in depth than needed for the class but it is useful to read above what is required to have a better understanding. Alternatively, some of the course material is not covered by these readings. In the end, your lecture notes are the final basis for what is covered in the class and what is not.

Lecture 1: Black Bodies in Space

Observational Astrophysics - Chapter 3.1-3.3

Astrophysical Techniques - pg 322

Lecture 2: Monsieur Fourier and his Elegant Transform

Observational Astrophysics - Appendix A

Astrophysical Techniques - Chapter 2.1

Lecture 3: Everything You Always Wanted to Know About Optics

Observational Astrophysics - Chapter 5.1, pg 218-220 (PSF), Chapter 6.1

Astrophysical Techniques - pg 67-87, 2.1.1 (PSF)

Lecture 4: Eyes to the Skies

Observational Astrophysics - Chapter 5.2 + Chapter 3.1-3.3

Astrophysical Techniques - Chapter 1.1.18-1.1.21 + Chapter 1.1.23-1.1.24 (more in depth than needed but helps put everything into context)

Lecture 5: Your Noise is My Signal

Observational Astrophysics - Chapter 9.1 + Appendix B (includes poisson noise and more)

Astrophysical Techniques - Chapter 1.1.17

Lecture 6: Your Favorite Station at 1420 MHz

Observational Astrophysics - Chapter 5.2

Astrophysical Techniques - Chapter 1.2

Lecture 7: Fringes, Damned Fringes and Interferometry

Observational Astrophysics - Chapter 6.5, Chapter 7.5

Astrophysical Techniques - Chapter 2.5

Lecture 8: Trouble is in the Air

Observational Astrophysics - Cover in reading above a bit + Chapter 6.2

Astrophysical Techniques - Cover in reading above a bit

Lecture 9/10: Silicon Eyes 1 & Silicon Eyes 2 & Imaging

Observational Astrophysics - Chapter 7.1-7.2

Astrophysical Techniques - Chapter 1.1 + Chapter 3.2