

PGF5299: Physical Cosmology II

Paper Presentations

For the Paper Presentation, you will choose a paper from the list below, preferably related to your Final Project, and make a 30 minute slide presentation. If your presentation is written and spoken in English, you will get up to 1.0 extra point. This will comprise 10% of your final grade. List of papers to choose:

CMB: W. Hu, S. Dodelson, *Cosmic Microwave Background Anisotropies*, Ann. Rev. Astron. Astrophys. 40 171 (2002), astro-ph/0110414;

CAMB: A. Lewis, A. Challinor, A. Lasenby, *Efficient computation of CMB anisotropies in closed FRW models*, Ap. J. 538:473-476, (2000). astro-ph/9911177;

CosmoMC: A. Lewis, S. Bridle, *Cosmological parameters from CMB and other data: a Monte-Carlo approach*, Phys. Rev. D66, 103511 (2002), astro-ph/0205436.;

Power Spectrum Measurements: M. Tegmark, A. Hamilton, M. Strauss, M. Vogele, A. Szalay, *Measuring the Galaxy Power Spectrum with Future Redshift Surveys*, ApJ v.499, p.555 (1998), astro-ph/970820;

Redshift Distortions: A. Hamilton, *Linear Redshift Distortions: A Review*, The Evolving Universe, ASSL 231, pp 185 (1998), astro-ph/9708102;

Halo Model: A. Cooray, R. Sheth, *Halo Models of Large Scale Structure*, Phys. Rept. 372, 1, (2002), astro-ph/0206508;

Clusters: S. Allen, A. Evrard, A. Mantz, *Cosmological Parameters from Observations of Galaxy Clusters*, Ann. Rev. Astron. Astrophys. 49: 409 (2011);

Clusters: A. Kravtsov, S. Borgani, *Formation of Galaxy Clusters*, Ann. Rev. Astron. Astrophys., 50, 353 (2012), arXiv:1205.5556;

Lensing: M. Bartelmann, M., P. Schneider. *Weak gravitational lensing*, Physics Reports, 340, Issue 4-5, p. 291-472, (2001). astro-ph/9912508;

Lensing: H. Hoekstra, B. Jain, *Weak Gravitation Lensing and Its Cosmological Applications*, Annual Review of Nuclear and Particle Systems, vol. 58, p.99, (2008);

Photometric Redshifts: F. Abdalla, M. Banerji, O. Lahav, V. Rashkov, *A comparison of six photometric redshift methods applied to 1.5 million luminous red galaxies*, Mon. Not. Roy. Astron. Soc., 417, pp. 1891, (2011), arXiv:0812.3831;

Modified Gravity: B. Jain, J. Khoury, *Cosmological tests of gravity* Annals of Physics, Vol. 325, Issue 7, p. 1479. (2010), arXiv:1004.3294;

Analysis: M. Tegmark, A. Taylor, A. Heavens, *Karhunen-Loeve Eigenvalue Problems in Cosmology: How Should We Tackle Large Data Sets?*, ApJ. 480, p.22 (1997), astro-ph/9603021;

Cosmic Acceleration: A. Silvestre, M. Trodden, *Approaches to Understanding Cosmic Acceleration*, Rept. Prog. Phys. 72, 096901, (2009), arXiv:0904.0024.