

Timeline of Graduate Research

- Spring 2021: Guided Literature Review of baryon acoustic oscillations, DESI and redshift distortions. Attendance of DESI meetings
- Summer 2021: Research into CMB ML, DESI meetings, using Cristhian's code to measure baryon acoustic oscillations from BOSS DR12
- Fall 2021: Meetings, some BAO and research into BARRY
- Spring 2022:
- Summer 2022:
- Fall 2022: Some ML meetings, DESI meetings

DESI Contributions

- Cristhian's Code
 - BAO fits using Cristhian's code
 - Exploration of fits using χ^2 vs MCMC
- Mock Challenge in DESI KP45 Working Group
 - Measurement of power spectra (pre and post reconstruction) for Abacus CubicBox Mocks. Some exploration of reconstruction for Abacus CutSky and correlation function for Cubic Box .
 - Measurements of the power spectrum for 25 realizations for pre-reconstruction, isotropic and anisotropic reconstruction. Assistance debugging with other members of our group for different 2pt ELG measurements.
 - BAO fits to the power spectra (pre and post reconstruction) for Abacus CubicBox using the fitting code BARRY.
 - Plots and results presented to collaboration

Funding Statement of Research

George	Mitchell	2021	DESI	KP45	DESI Mock Challenge	BAO fits using Cristhian's code	Exploration of fits using MCMC vs Chi2 only
						Measurement of power spectra (pre and post reconstruction) for Abacus CubicBox Mocks. Some exploration of reconstruction for Abacus CutSky and correlation function for Cubic Box .	Measurements of the power spectrum for 25 realizations for pre-reconstruction, isotropic and anisotropic reconstruction. Assistance debugging with other members of our group for different 2pt ELG measurements.
		2022	DESI	KP45	DESI Y1 Mock Challenge: ELG 2pt measurements		
			DESI	KP45	DESI Y1 Mock Challenge: ELG BAO fits	BAO fits to the power spectra (pre and post reconstruction) for Abacus CubicBox using the fitting code BARRY.	Plots and results presented to collaboration