

Plan for CTA395 research

Mufteev Marat

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1 General Info

We are studying the 21 cm cosmological signal via computer simulations and analysis of data from the GBT experiment

2 Targets and tasks

2.1 Achieved

1) Created account at CITA 2) Created account at Github 3) Download and get comfortable at using VIM 4) Set up the Analysis-IM 5) Download CAMB and produce matter power spectrum 6) Read about the Dicke radiometer equation

2.2 Future

1) Find a good reference of the hyperfine structure 2) Make a movie of real data cube 3) Make own data cube with noise realization based on radiometer equation 4) Read about the Millennium simulations 5) Populate halos and galaxies into simulation volume and calculate their power spectrum 6) Compare results to the theory and use it in analysis of GBT

3 Plot

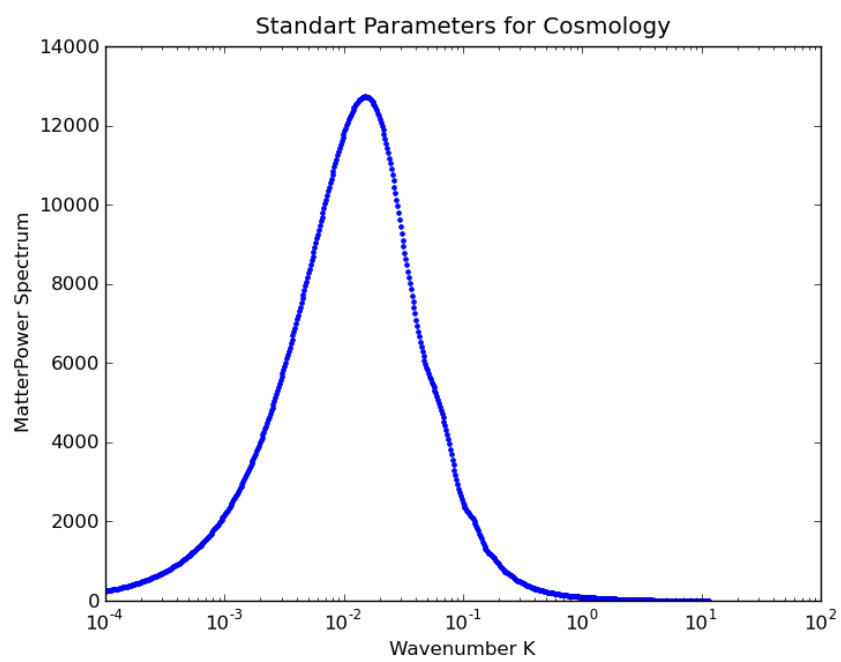


Figure 1: Matter power spectrum