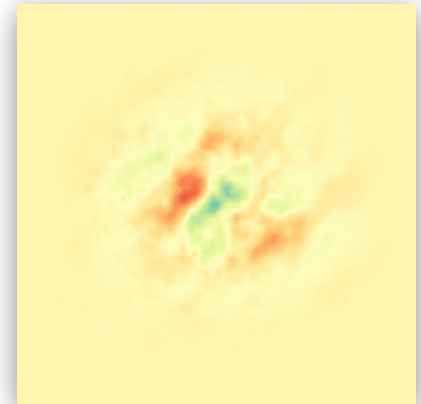
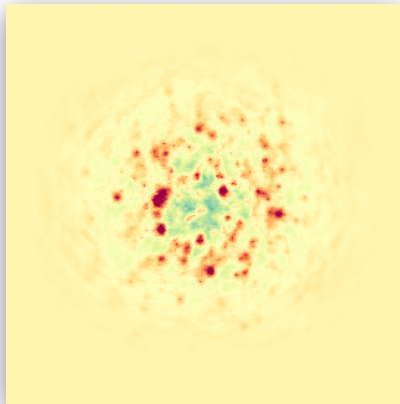
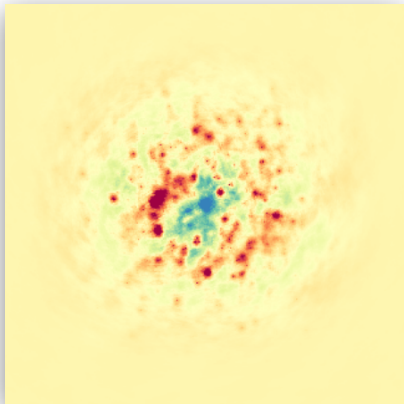
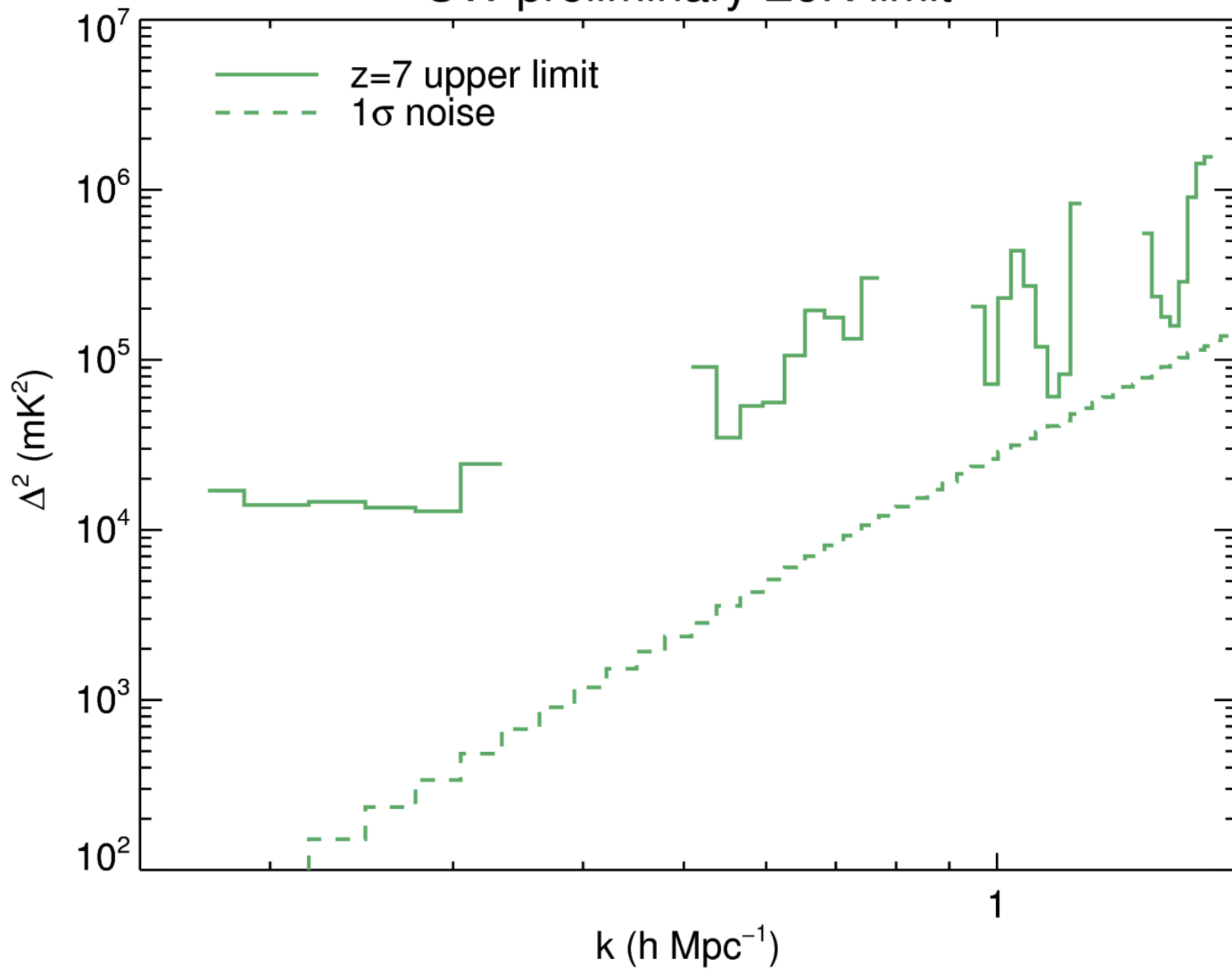


A New EoR Limit from the US MWA Pipeline

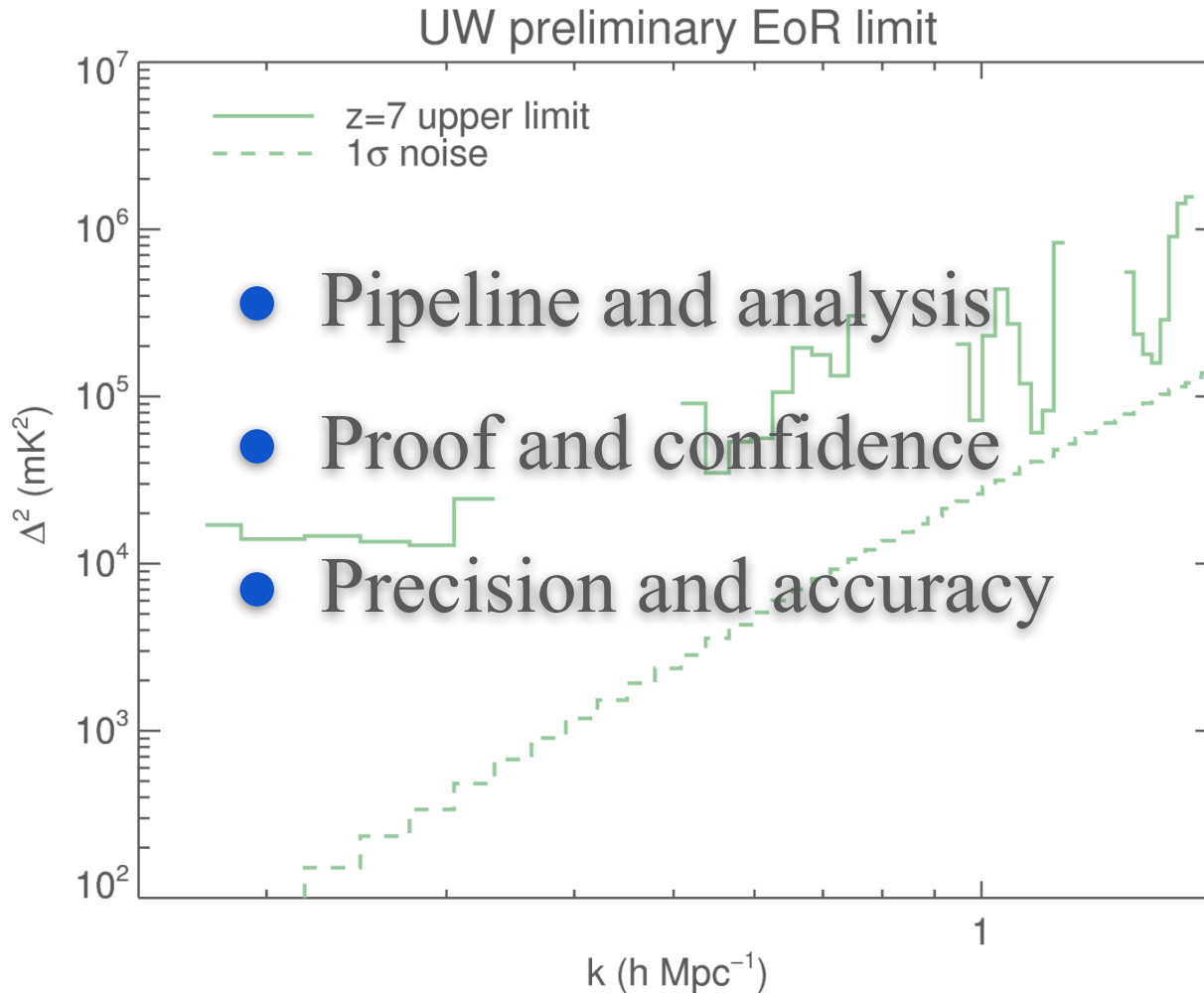


Nichole Barry
University of Washington
Science at Low Frequencies IV

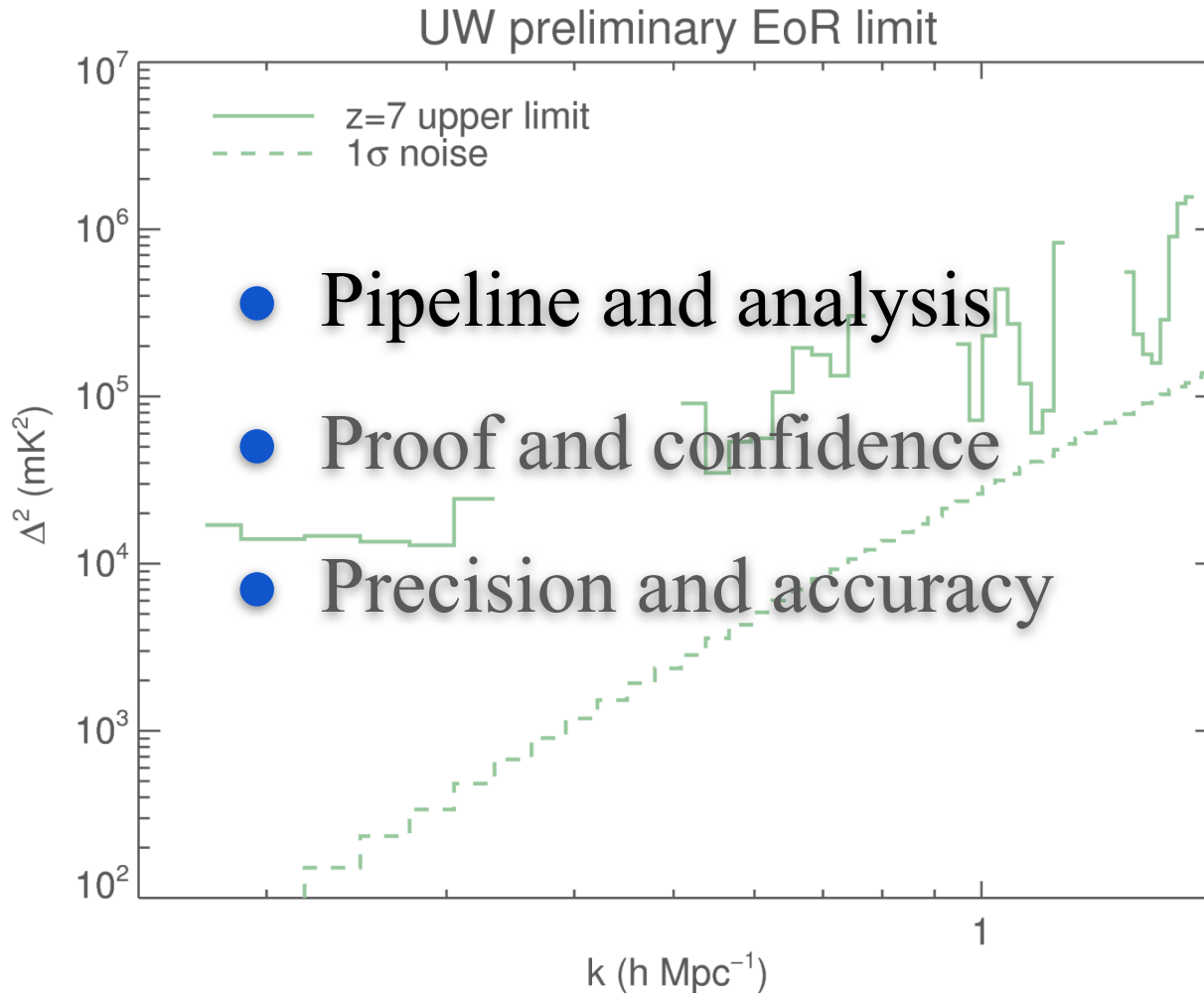
UW preliminary EoR limit



Requirements for a published limit

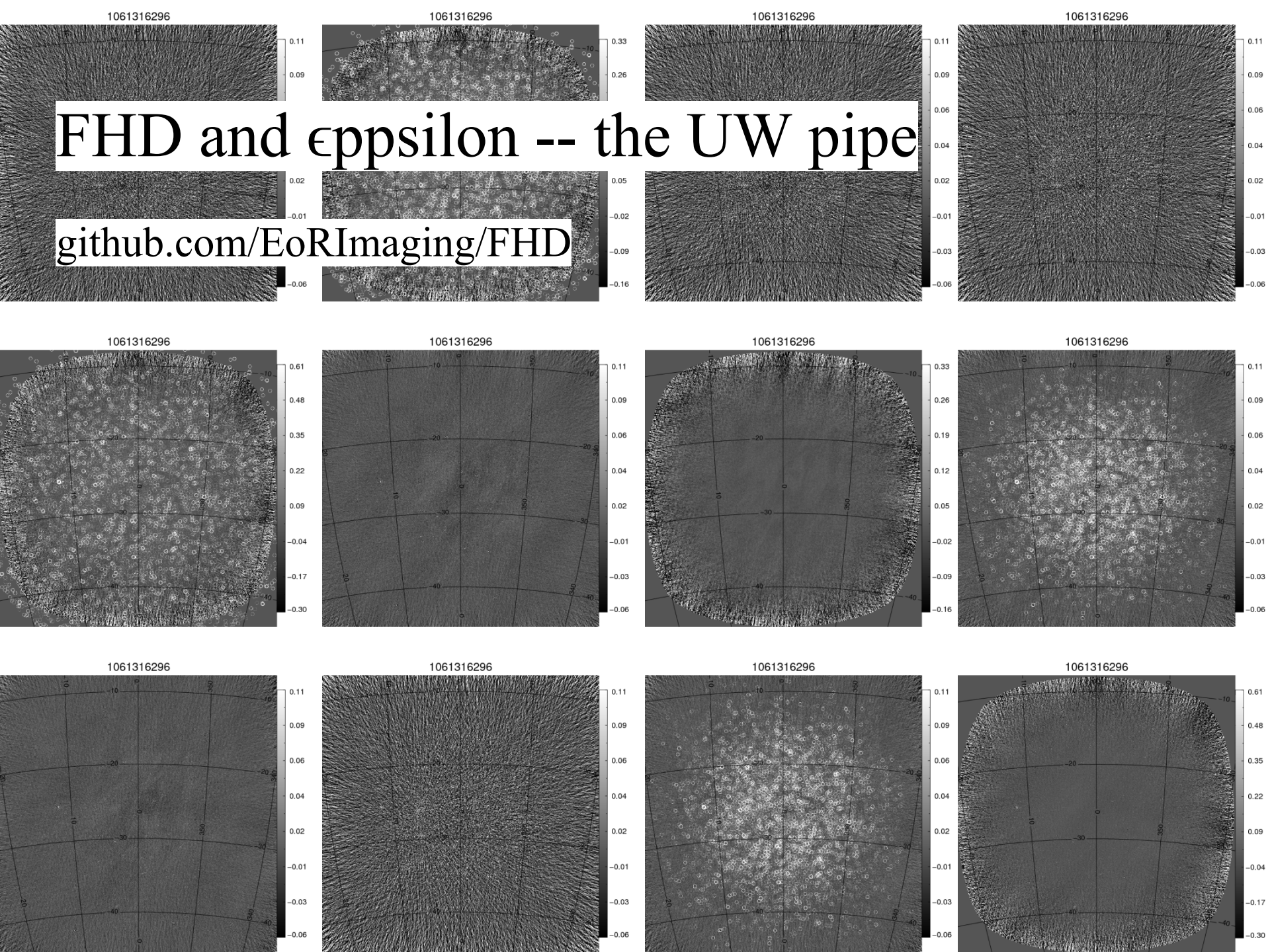


Requirements for a published limit



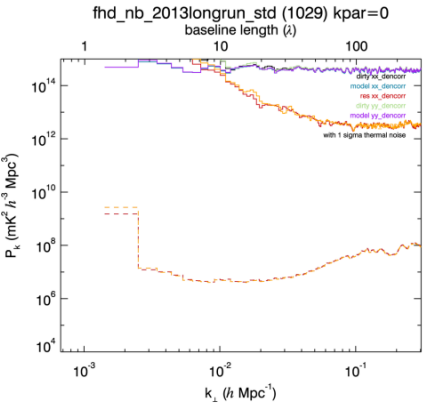
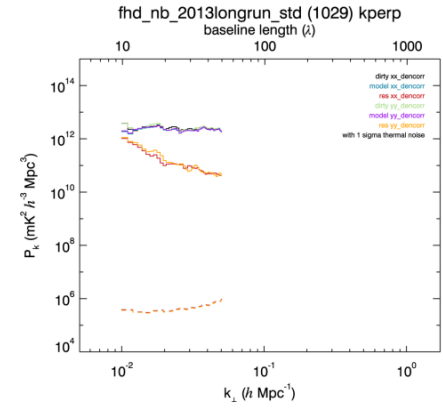
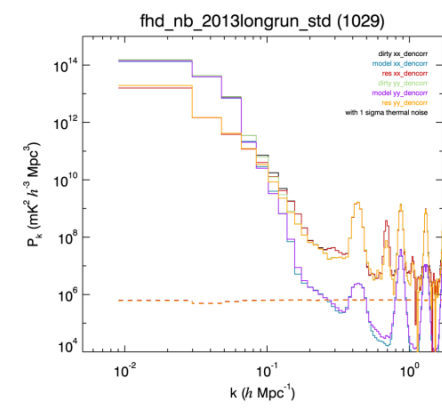
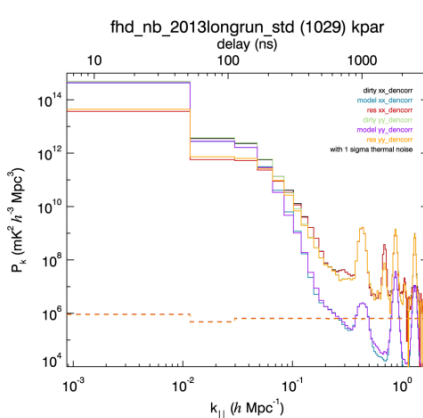
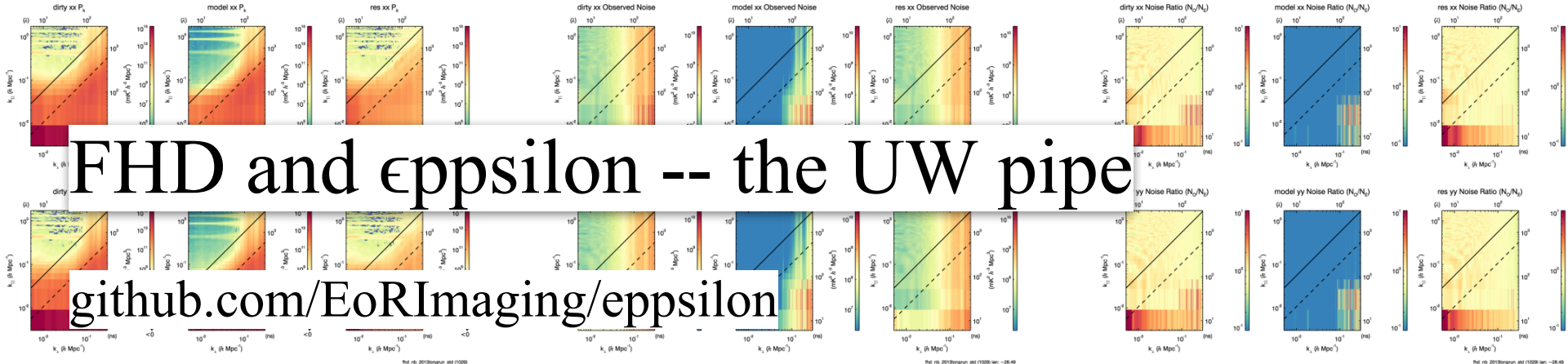
FHD and ϵ ppsilon -- the UW pipe

github.com/EoRImaging/FHD



FHD and ϵ psilon -- the UW pipe

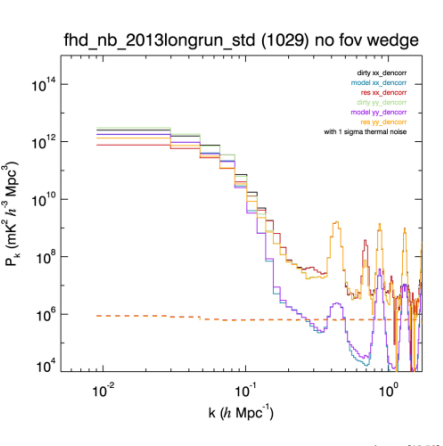
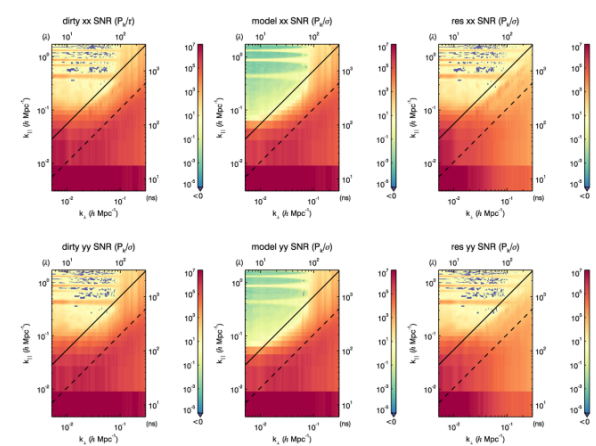
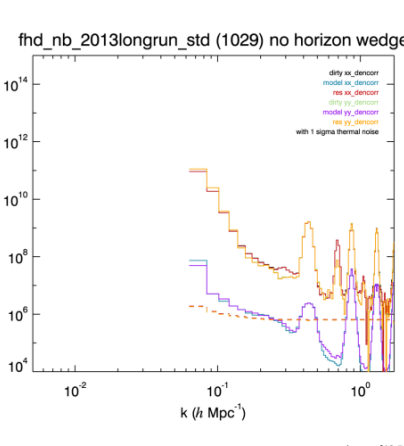
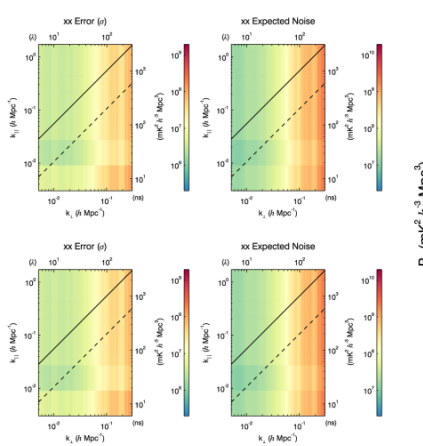
github.com/EoRImaging/epsilon



kperp: [10.50]

kperp: [10.50]

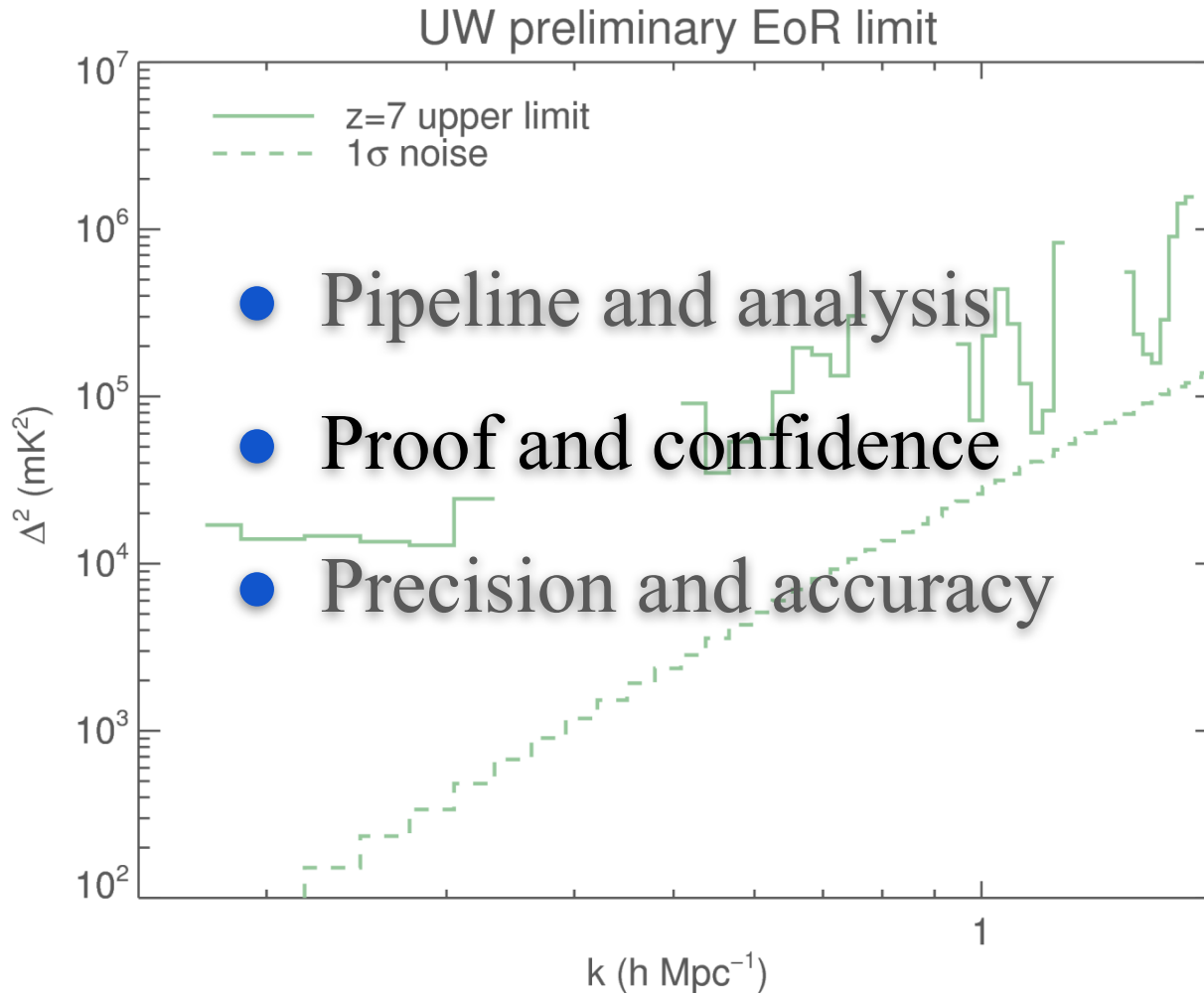
kperp: [10.50]



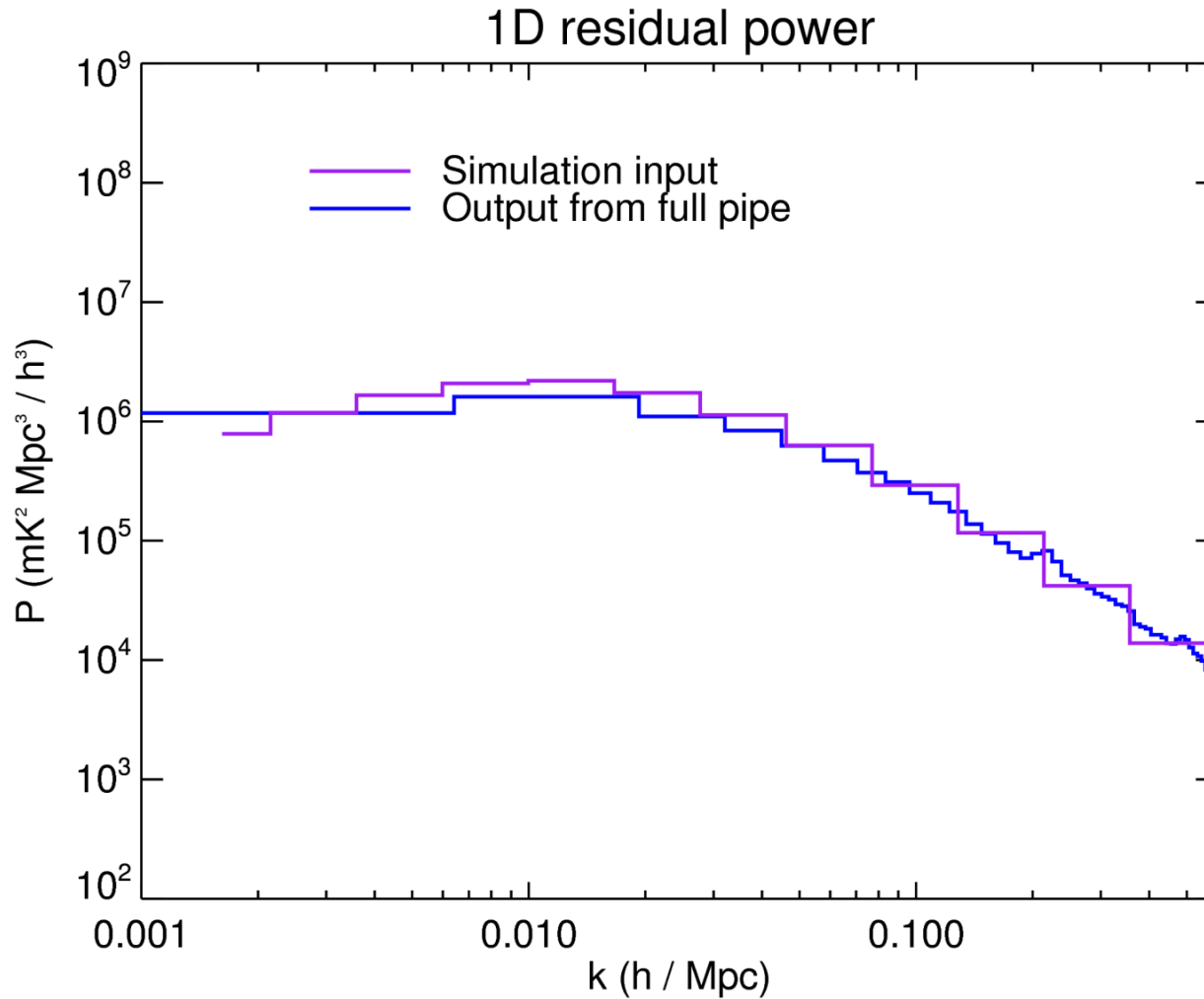
kperp: [10.50]

kperp: [10.50]

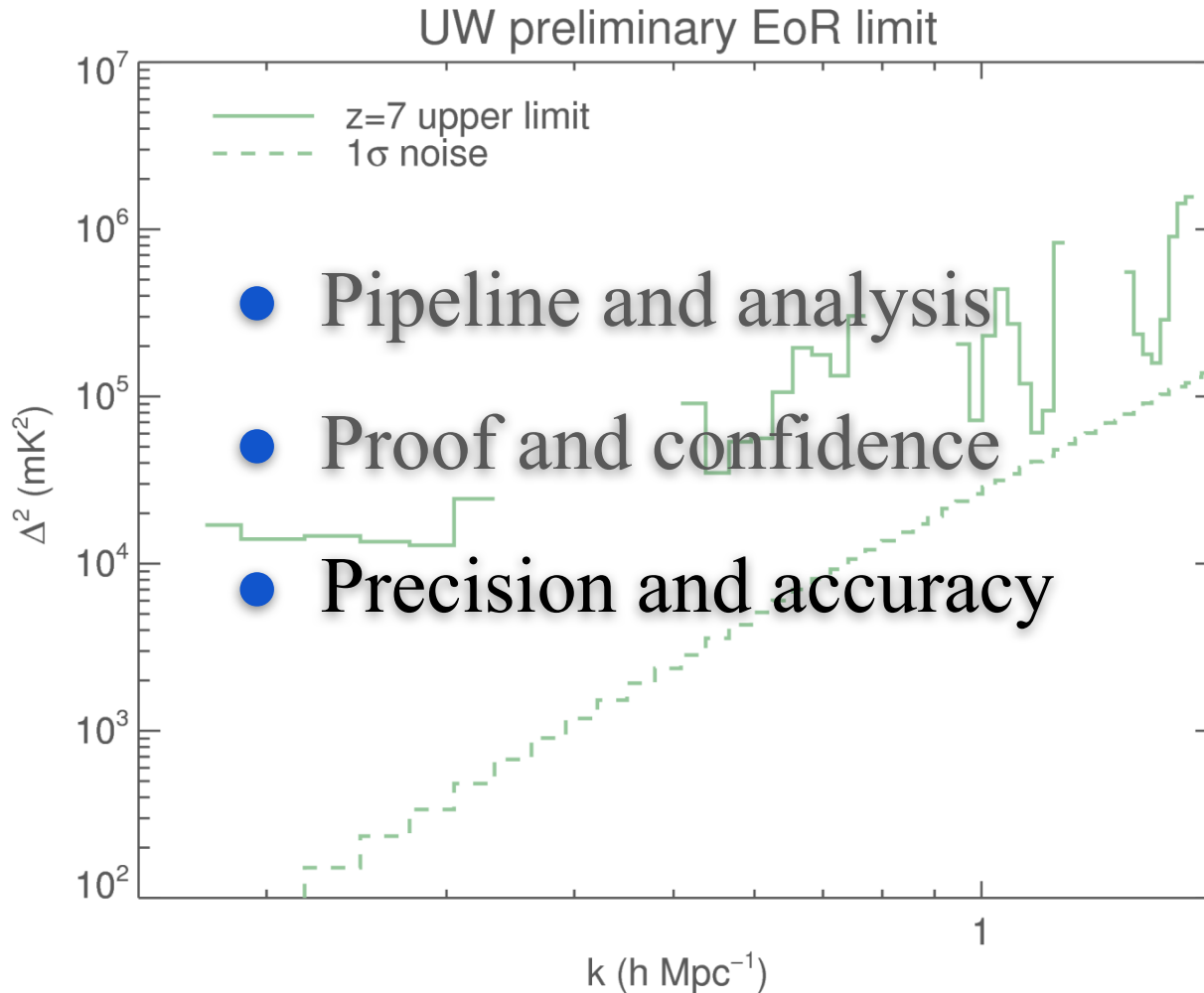
Requirements for a published limit



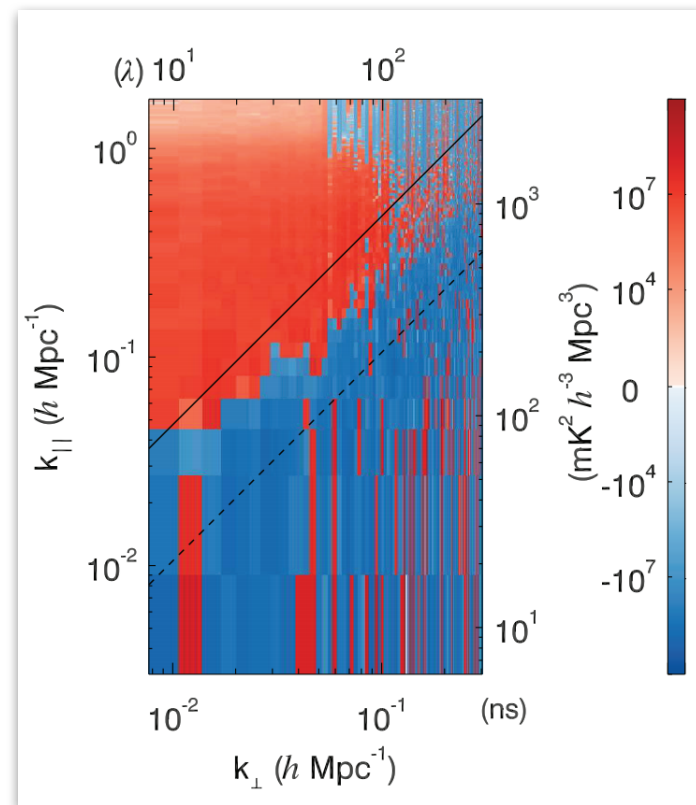
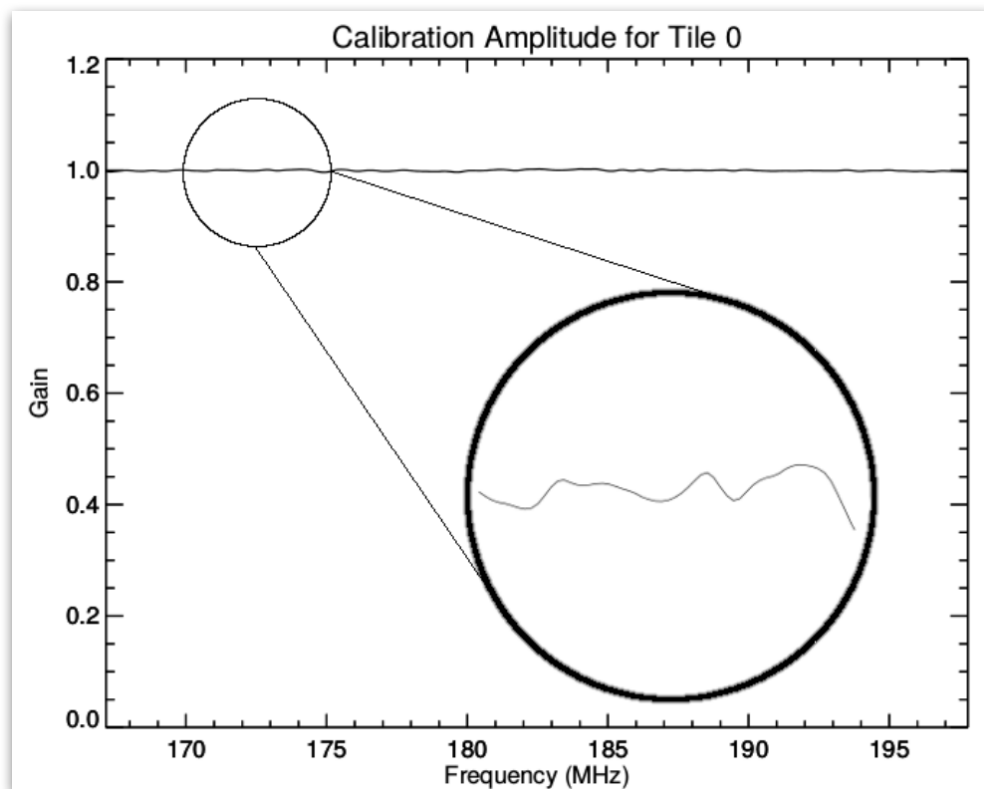
In-situ simulations, error propagation



Requirements for a published limit

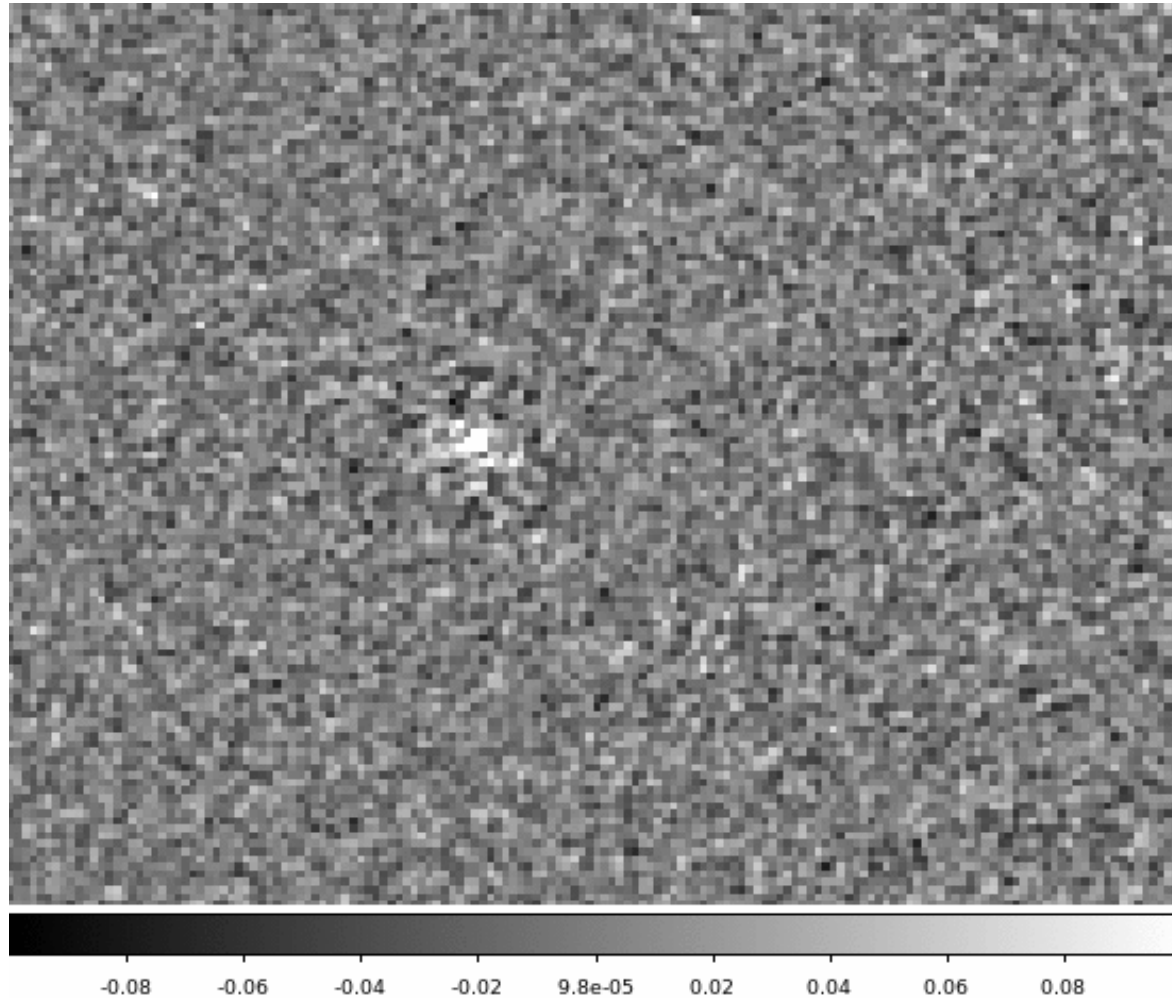


Precision and Accuracy

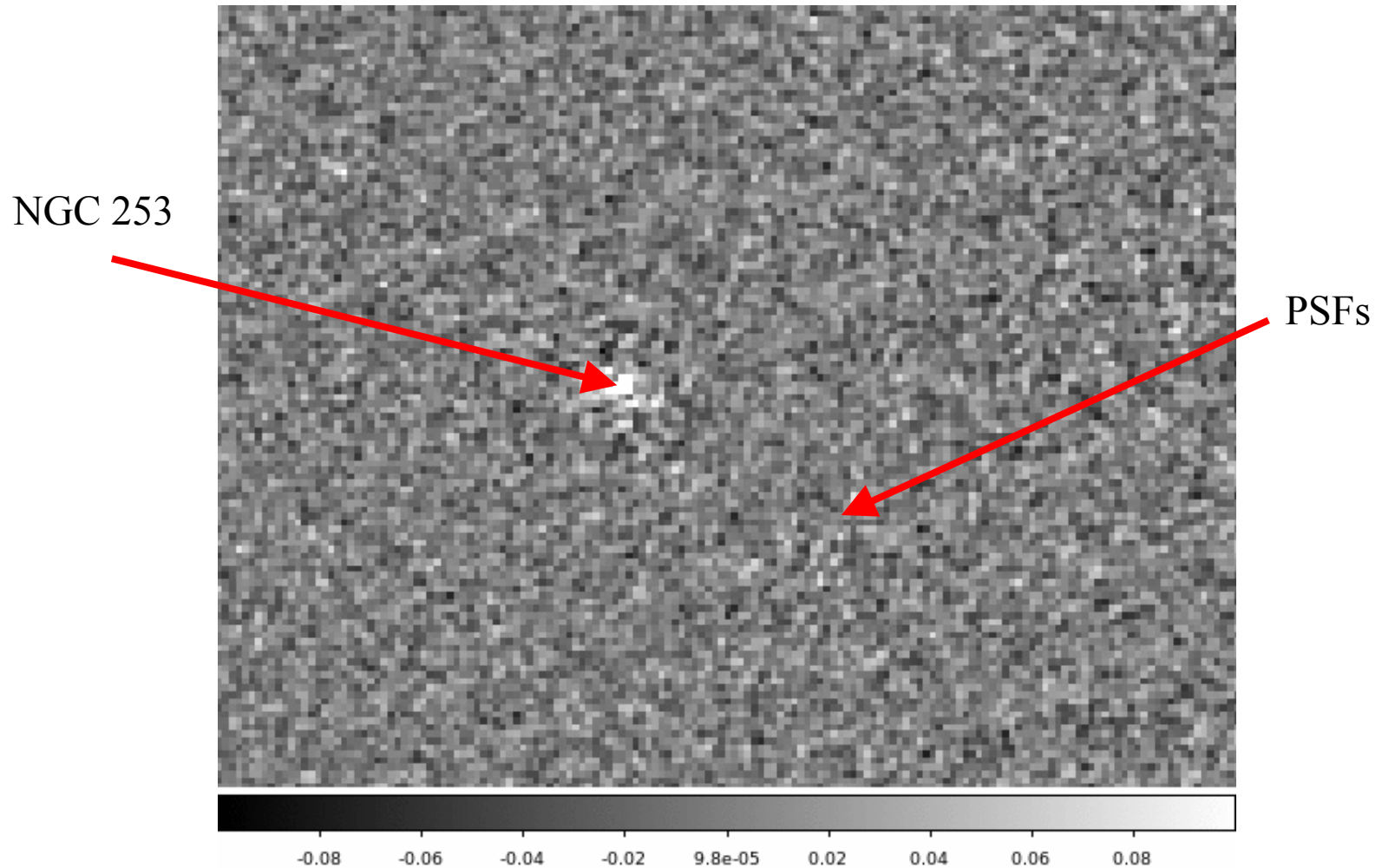


Spectral structure faster than 8 MHz must be known to 0.001%

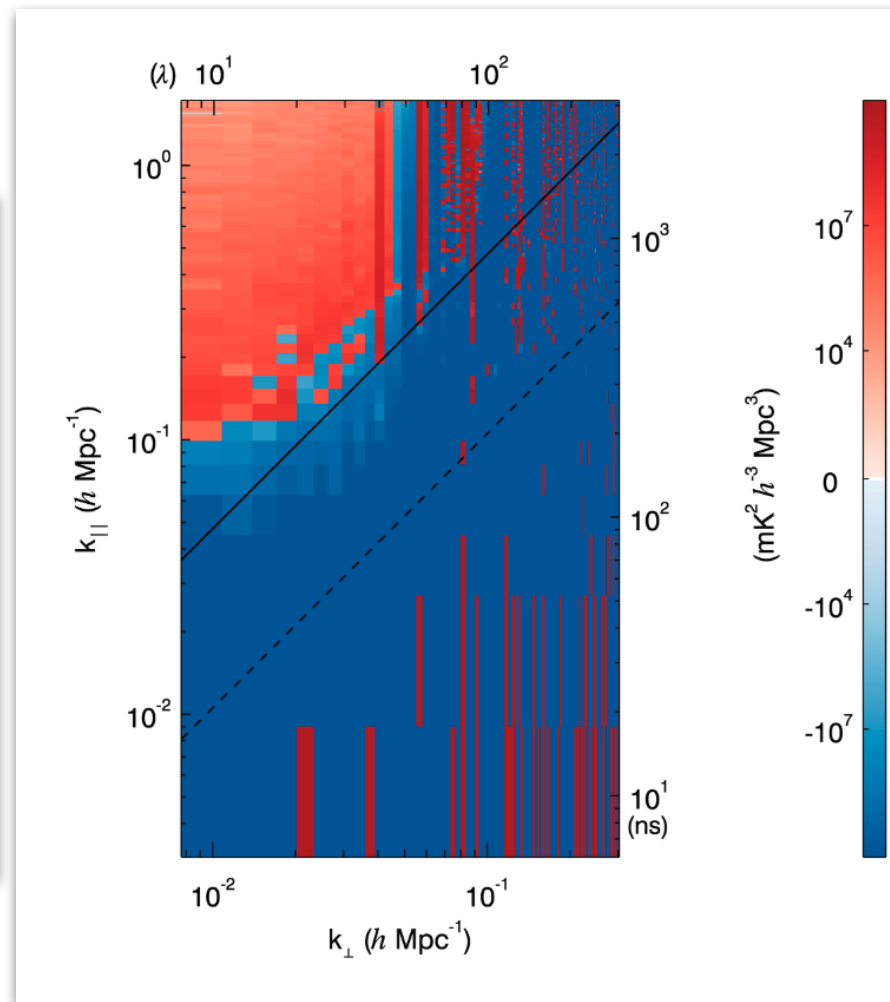
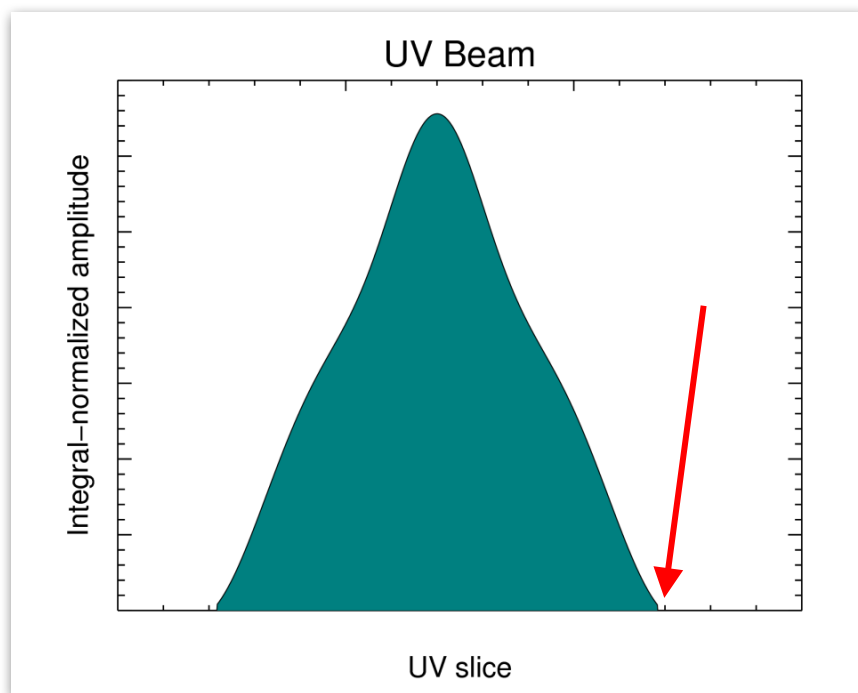
mJy constraint on fast spectral scales



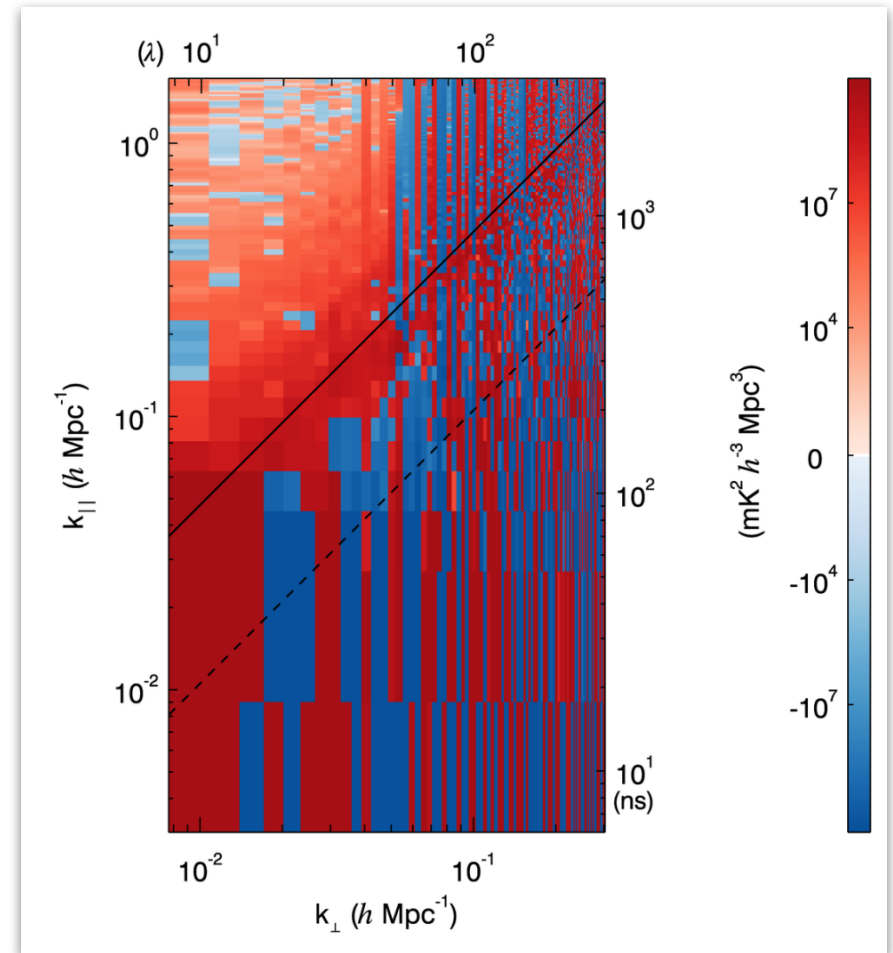
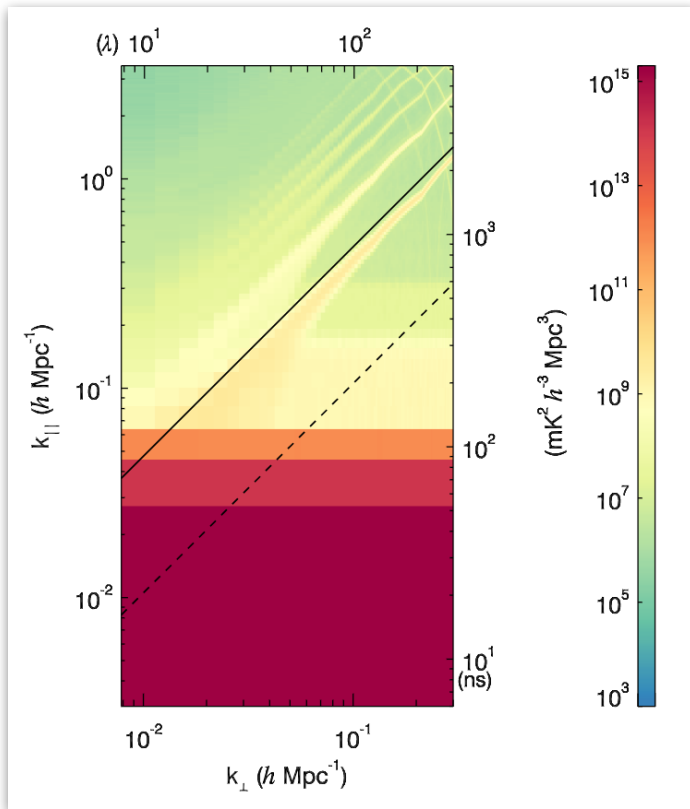
mJy constraint on fast spectral scales



Beam model threshold -- 0.1% error

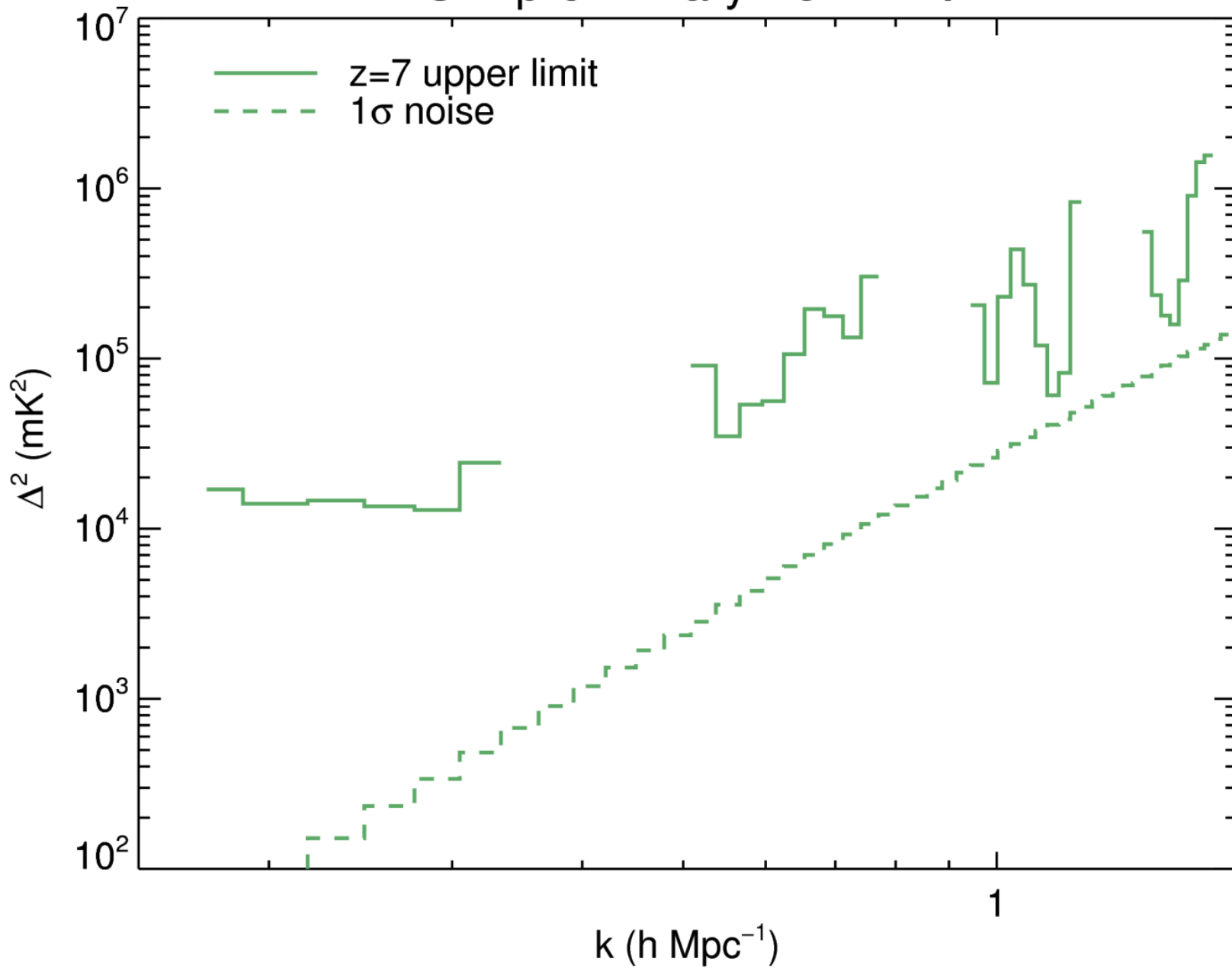


Cyclic beam errors -- 1% model error

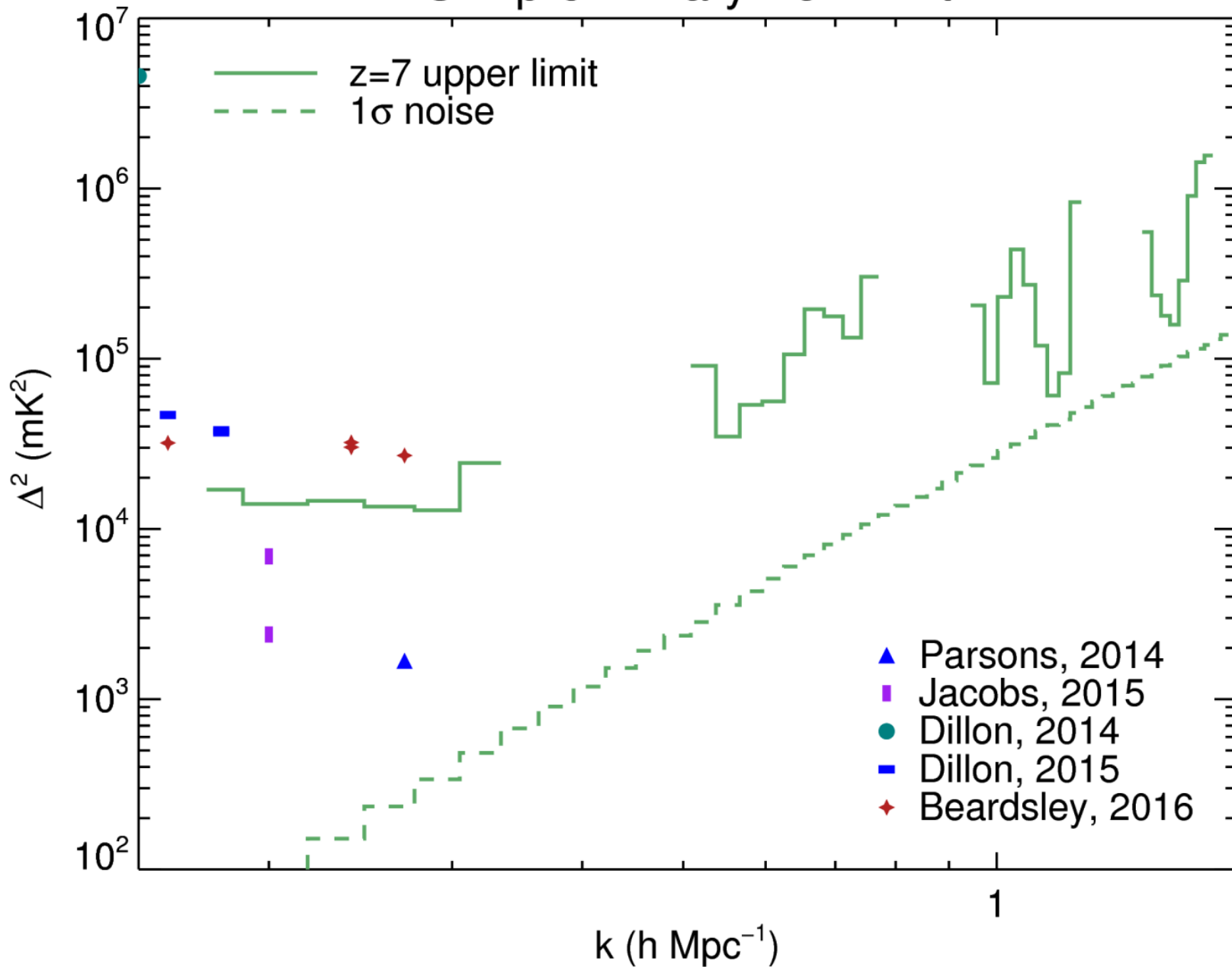


Credit: Adam Beardsley

UW preliminary EoR limit



UW preliminary EoR limit



Future outlook

Process longrun FHD data in CHIPS

Inverse covariance, but with confidence

Updates

A team effort

Adam Beardsley

Ruby Byrne

Patti Carroll

Jack Line

Bryna Hazelton

Miguel Morales

Bart Pindor

Ian Sullivan

Cath Trott

Mike Wilensky

The GLEAM team

