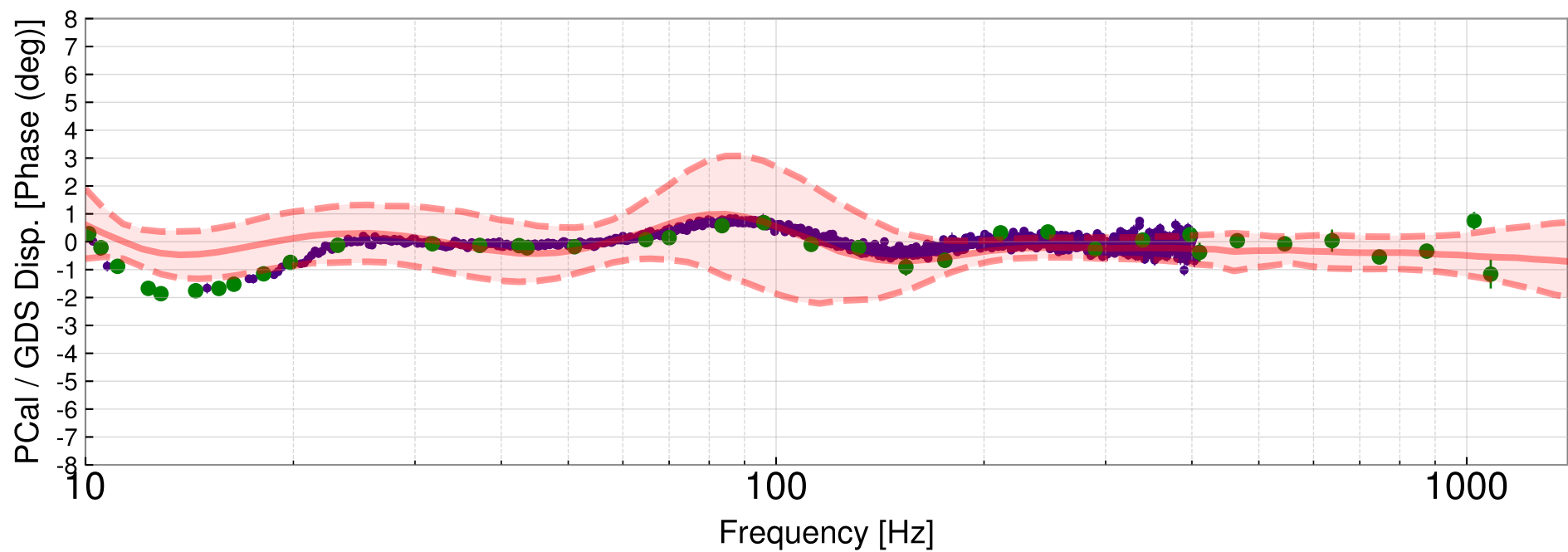
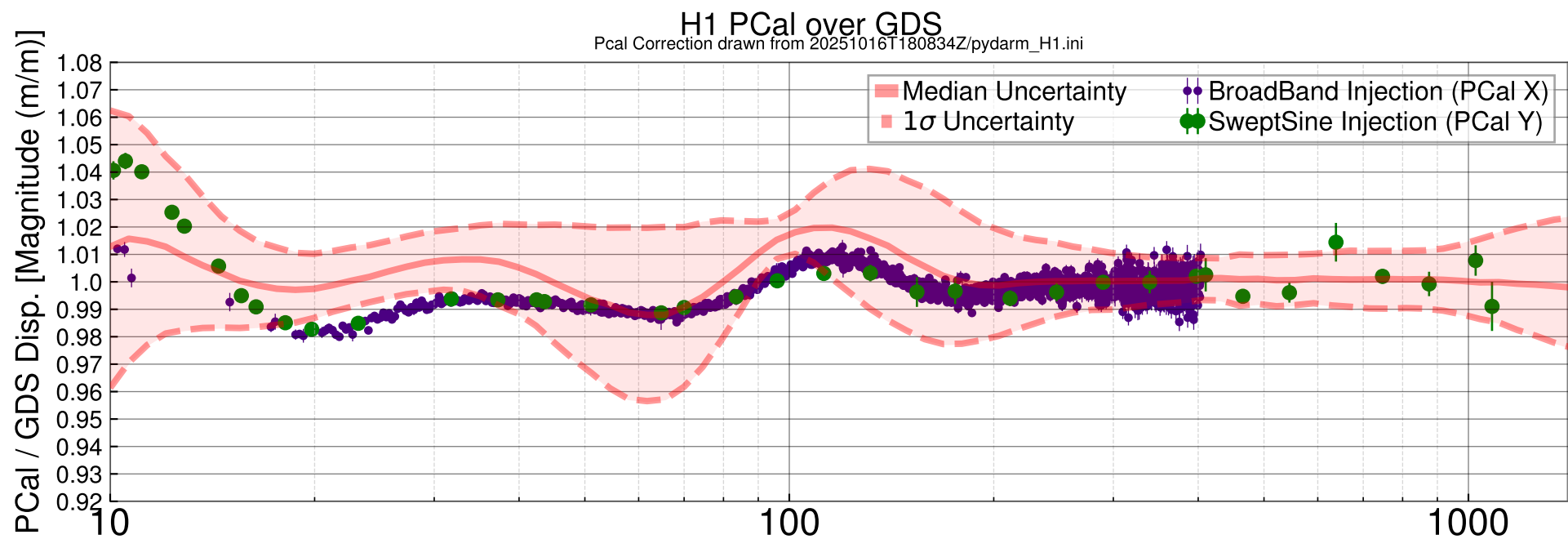
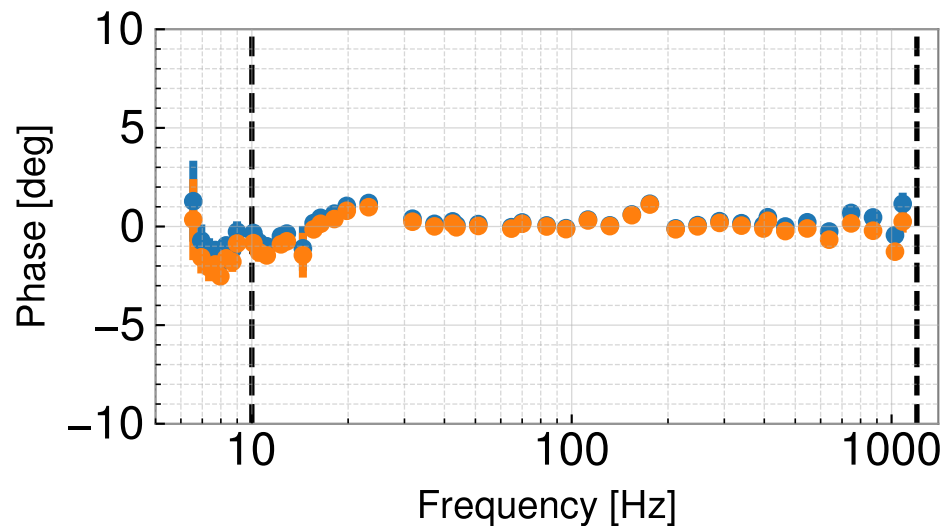
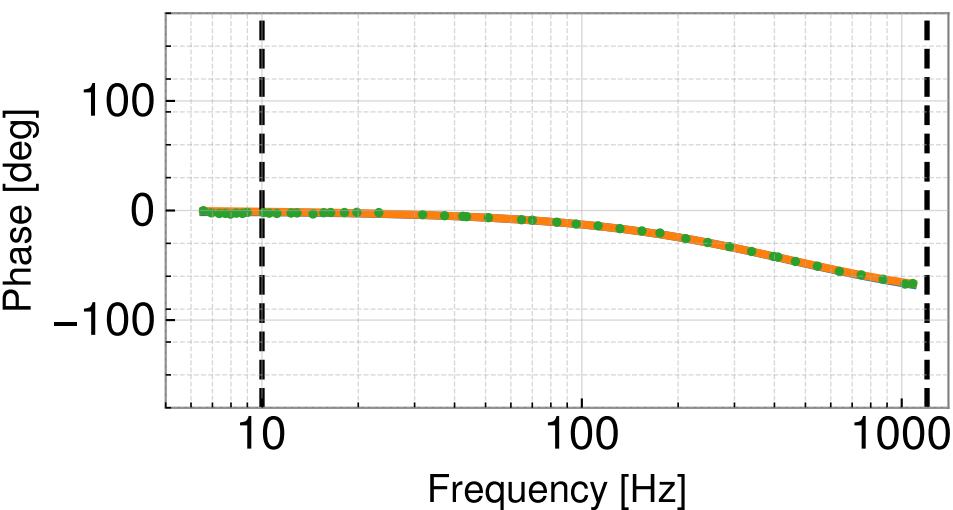
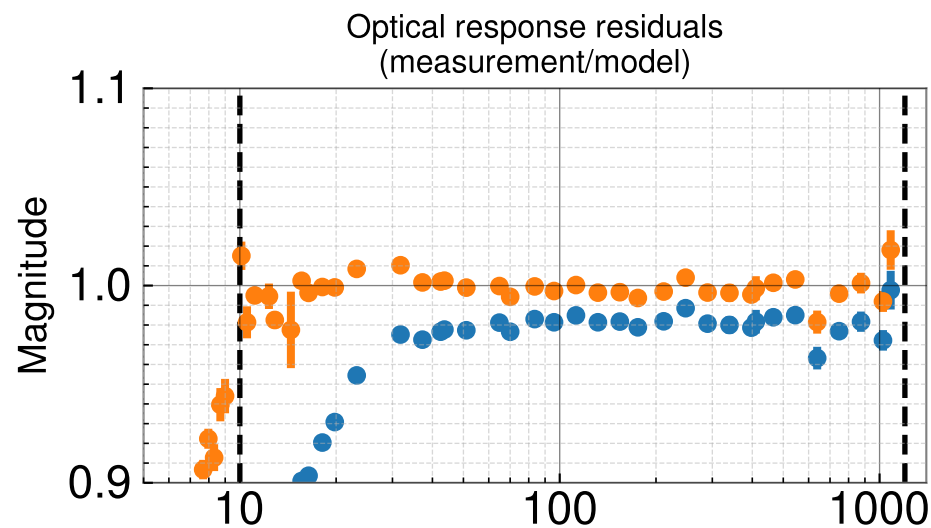
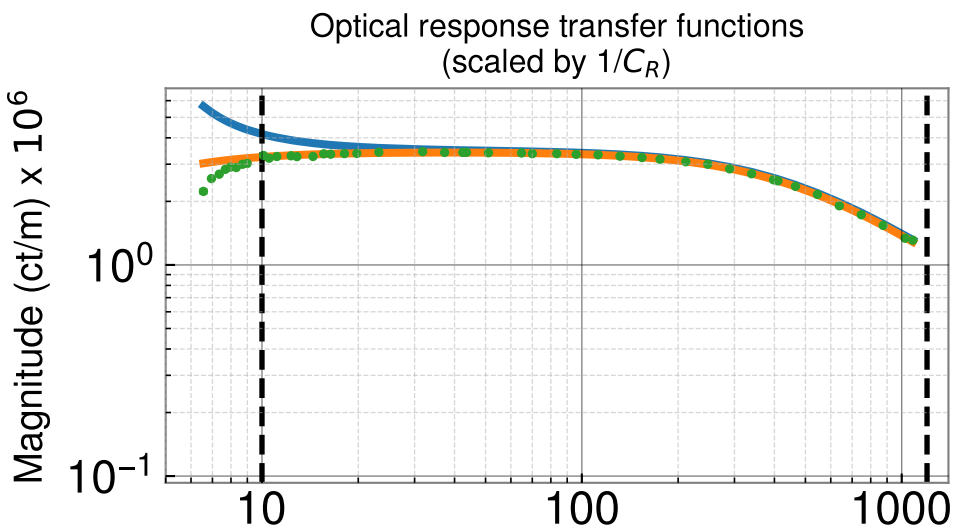
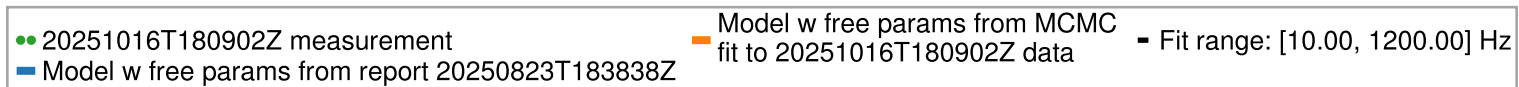




H1 sensing model MCMC summary

All fixed parameters drawn from 20251016T180834Z/pydarm_H1.ini

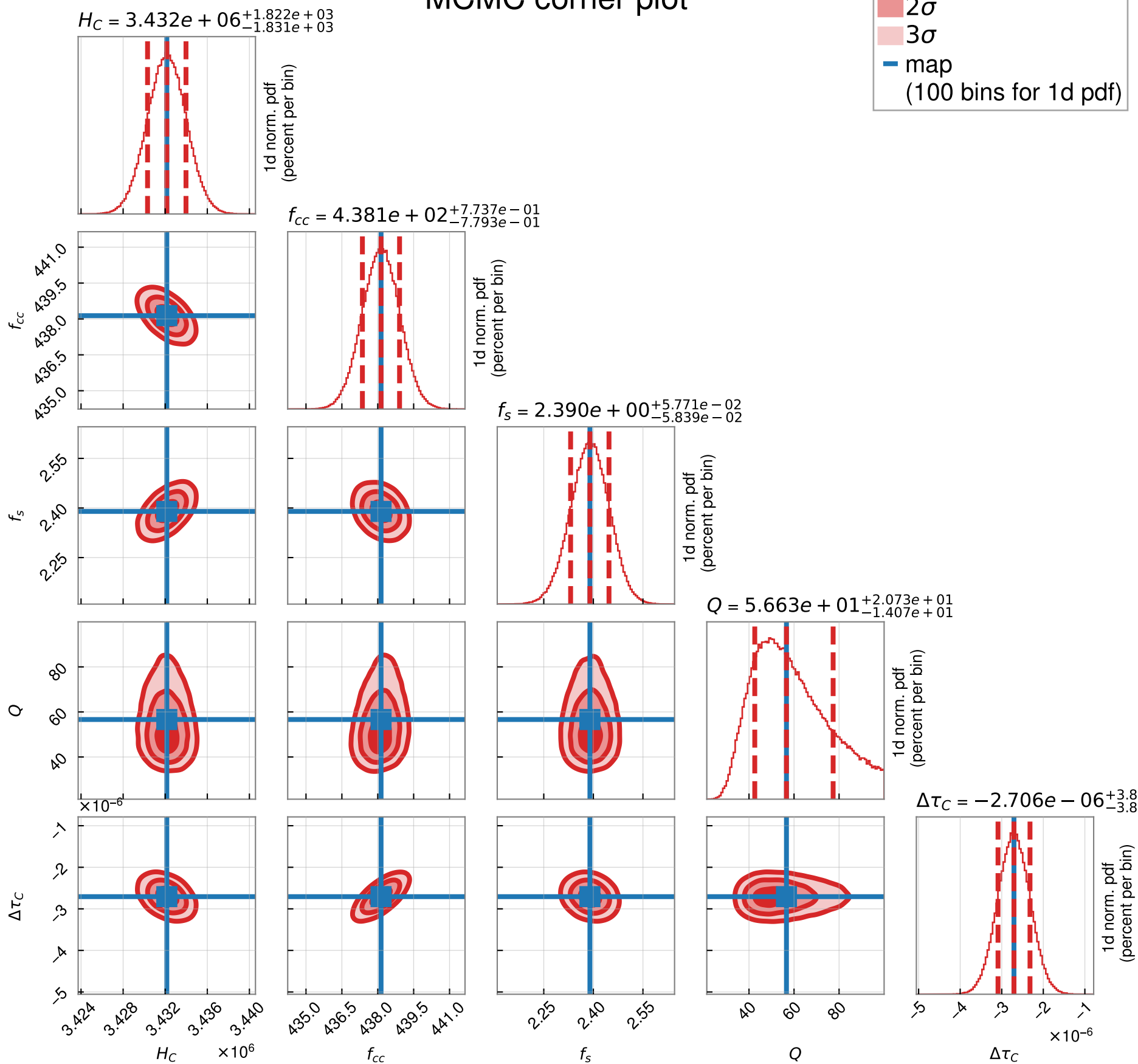


Parameter	(value +/-) value	+	-
Optical gain, H_c (ct/m)	3.432e+06	1822 (0.05%)	1831 (0.05%)
Cavity_pole, f_cc (Hz)	438.1	0.7737 (0.18%)	0.7793 (0.18%)
Detuned SRC spring frequency, f_s (Hz)	2.39	0.05771 (2.42%)	0.05839 (2.44%)
Detuned SRC spring quality factor, Q_s	56.63	20.73 (36.60%)	14.07 (24.84%)
Residual time delay, tau_c (s)	-2.706e-06	3.862e-07 (-14.27%)	3.834e-07 (-14.17%)

2d pdf contours

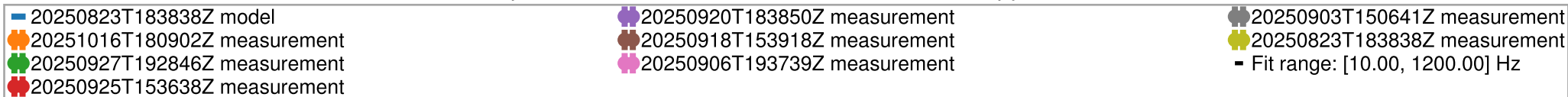
- 1 σ
- 2 σ
- 3 σ
- map

(100 bins for 1d pdf)

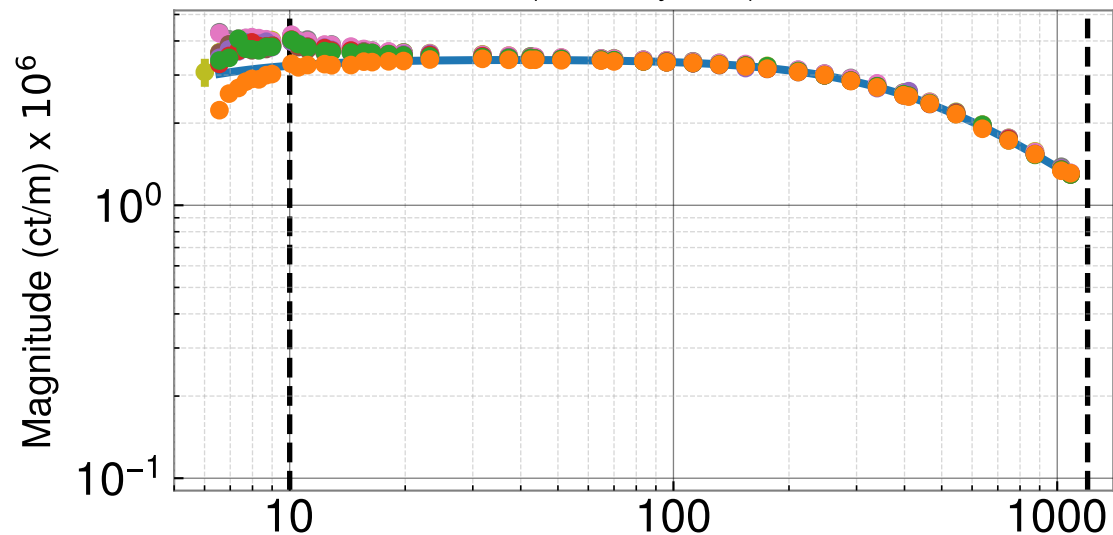


H1 sensing model history (last 9 measurements)

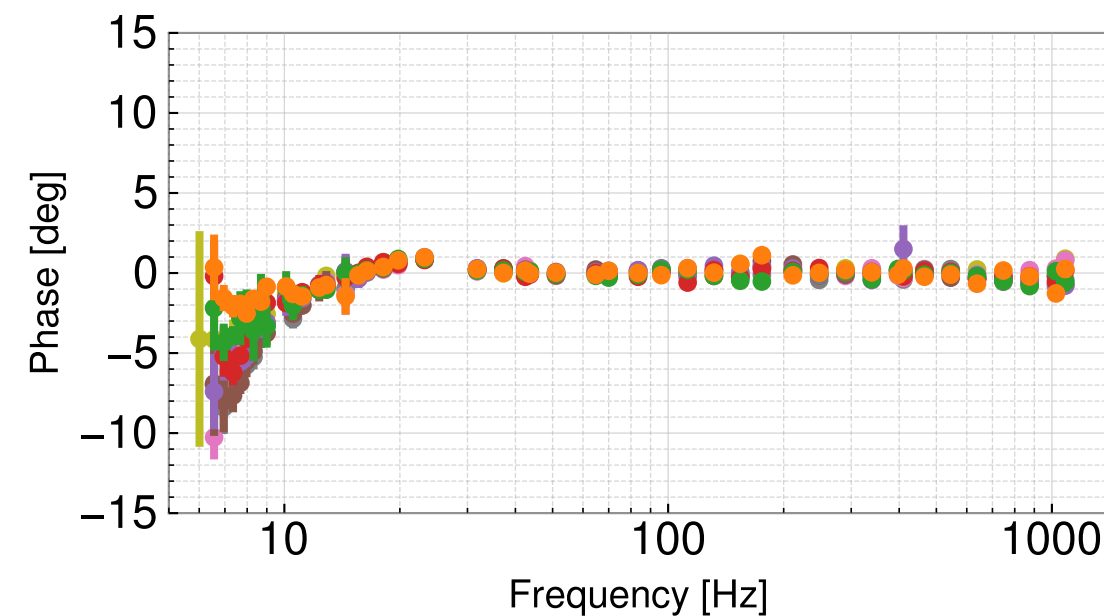
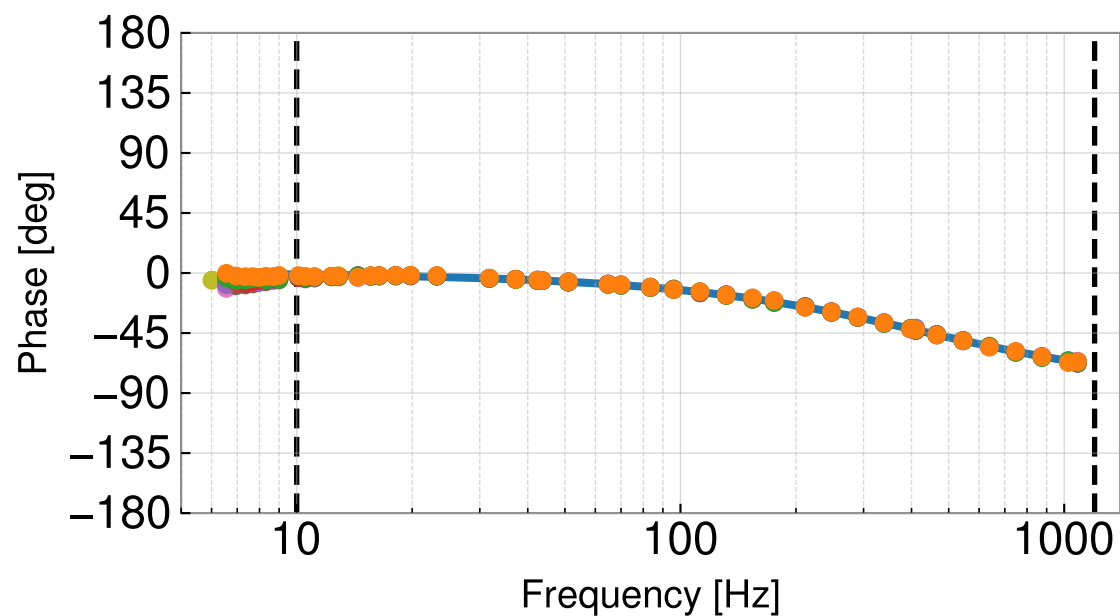
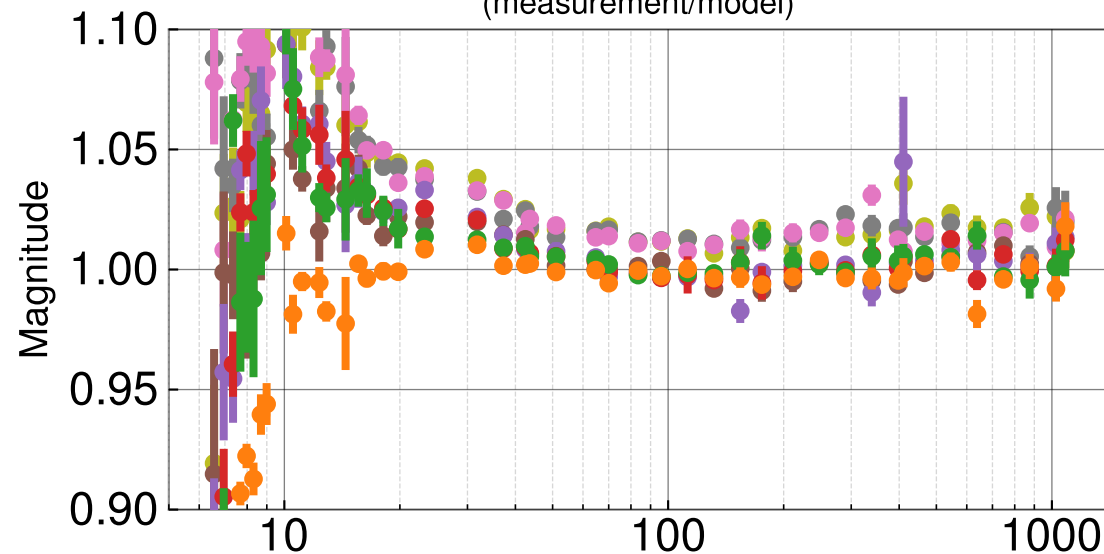
All fixed parameters drawn from 20251016T180834Z/pydarm_H1.ini



Optical response transfer functions
(scaled by $1/C_R$)

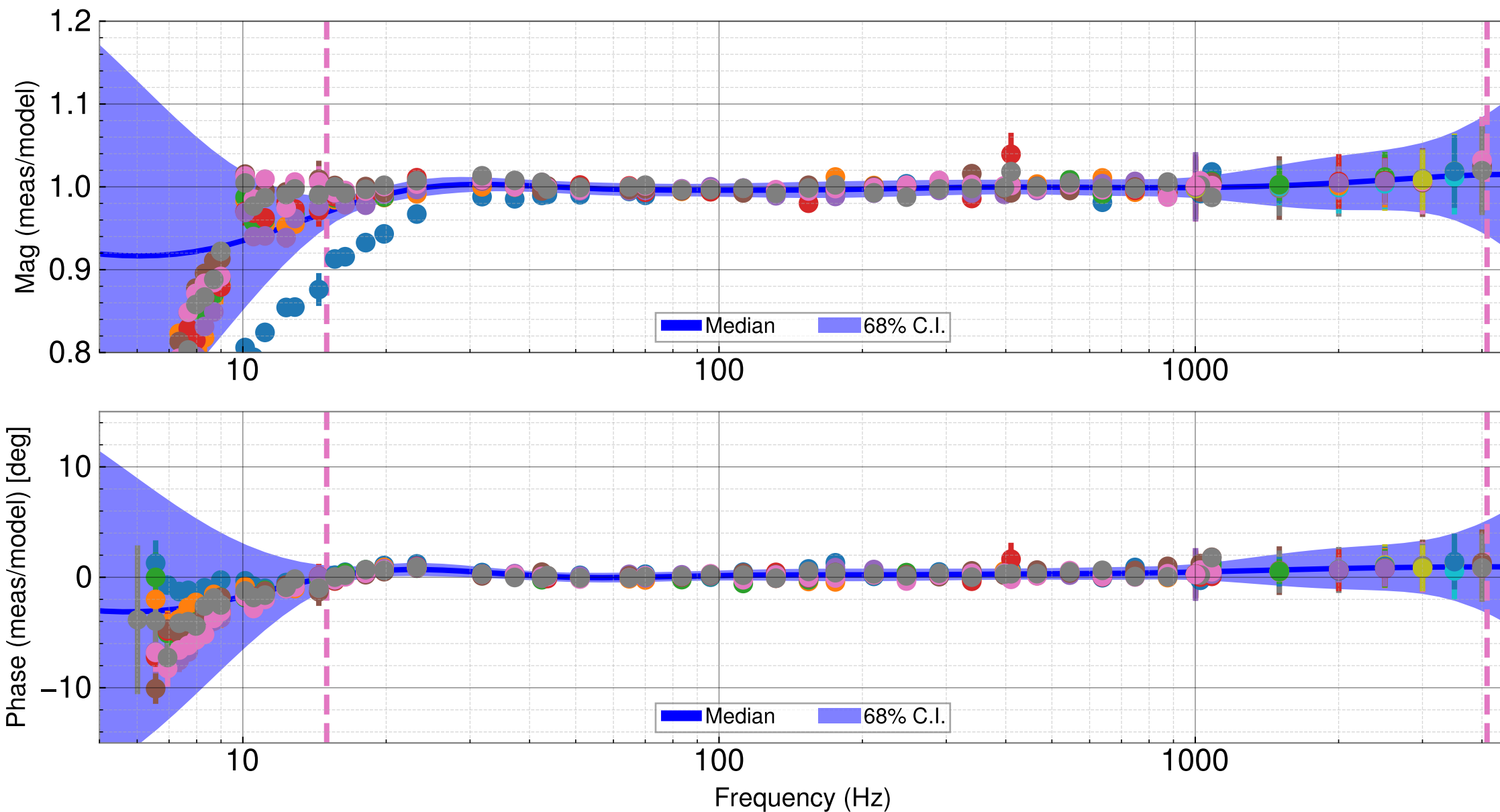


Optical response residuals
(measurement/model)



Sensing GPR

meas. 20251016T180902Z of report 20251016T180834Z
meas. 20250927T192913Z of report 20250927T192846Z
meas. 20250925T153706Z of report 20250925T153638Z
meas. 20250920T183918Z of report 20250920T183850Z
meas. 20250918T153945Z of report 20250918T153918Z
meas. 20250906T193807Z of report 20250906T193739Z
meas. 20250903T150709Z of report 20250903T150641Z
meas. 20250823T183906Z of report 20250823T183838Z

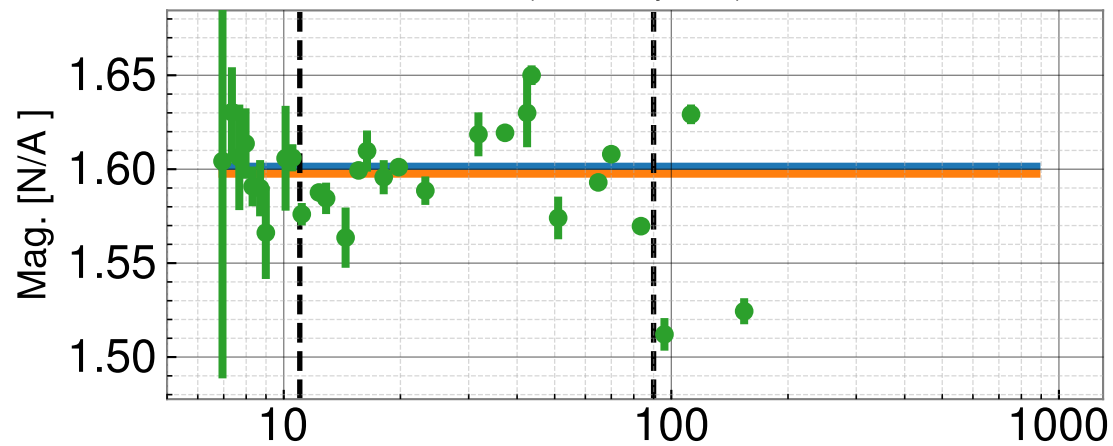


H1SUSEX L1 actuation model MCMC summary

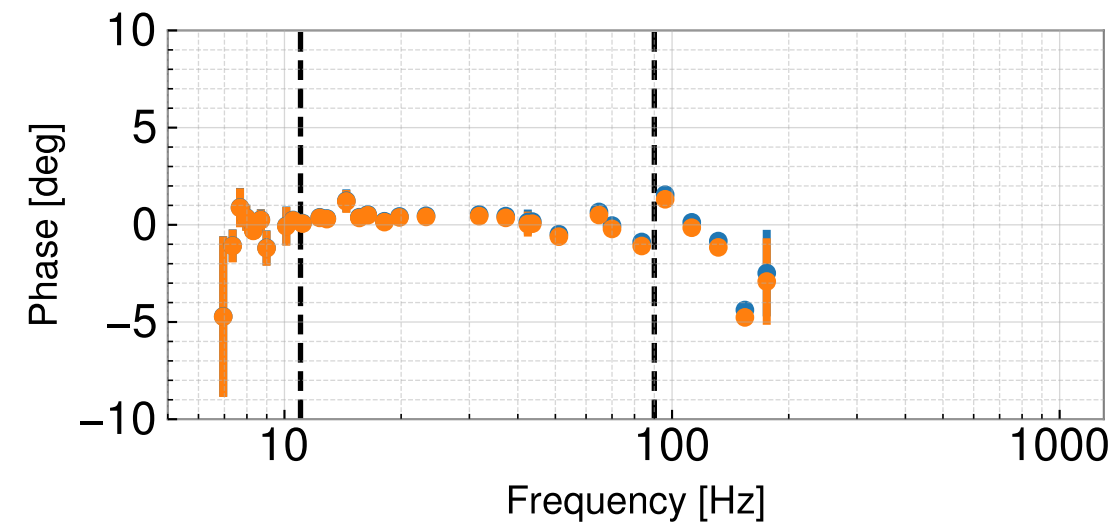
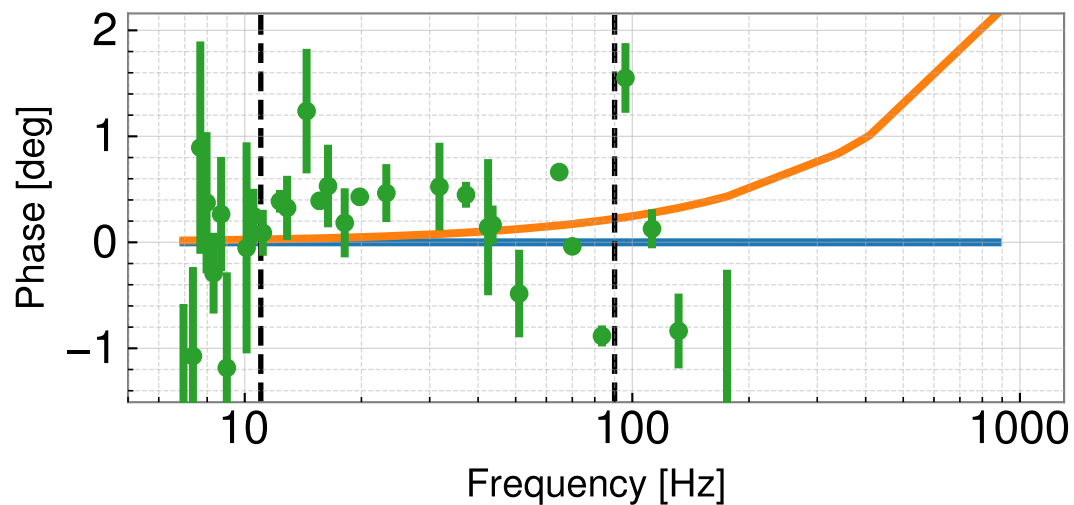
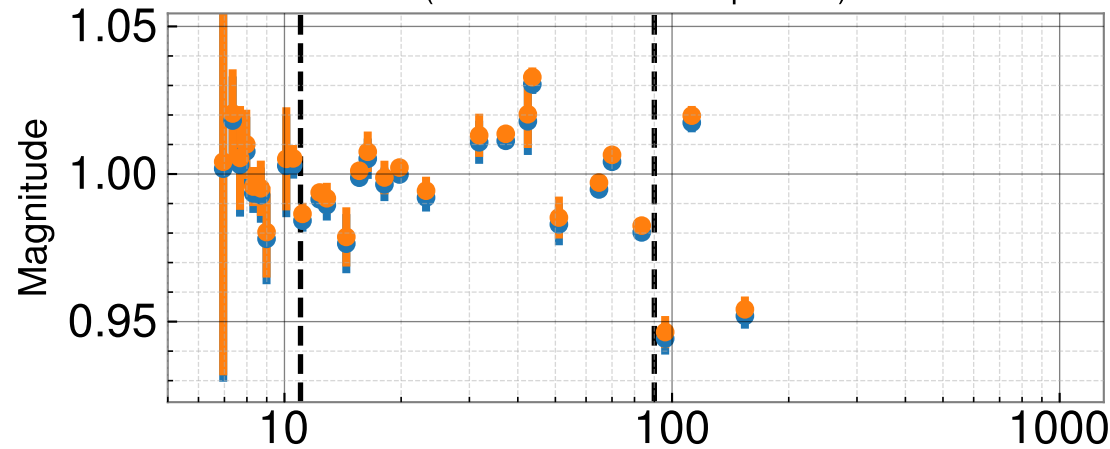
All fixed parameters drawn from 20251016T180834Z/pydarm_H1.ini

— Model w free params from report 20250823T183838Z
— Model w free params from
— MCMC fit to 20251016T180902Z data
■ 20251016T180902Z measurement
— Fit range 11.0 to 90.0 Hz

Actuation strength transfer functions
(scaled by H_{ref})



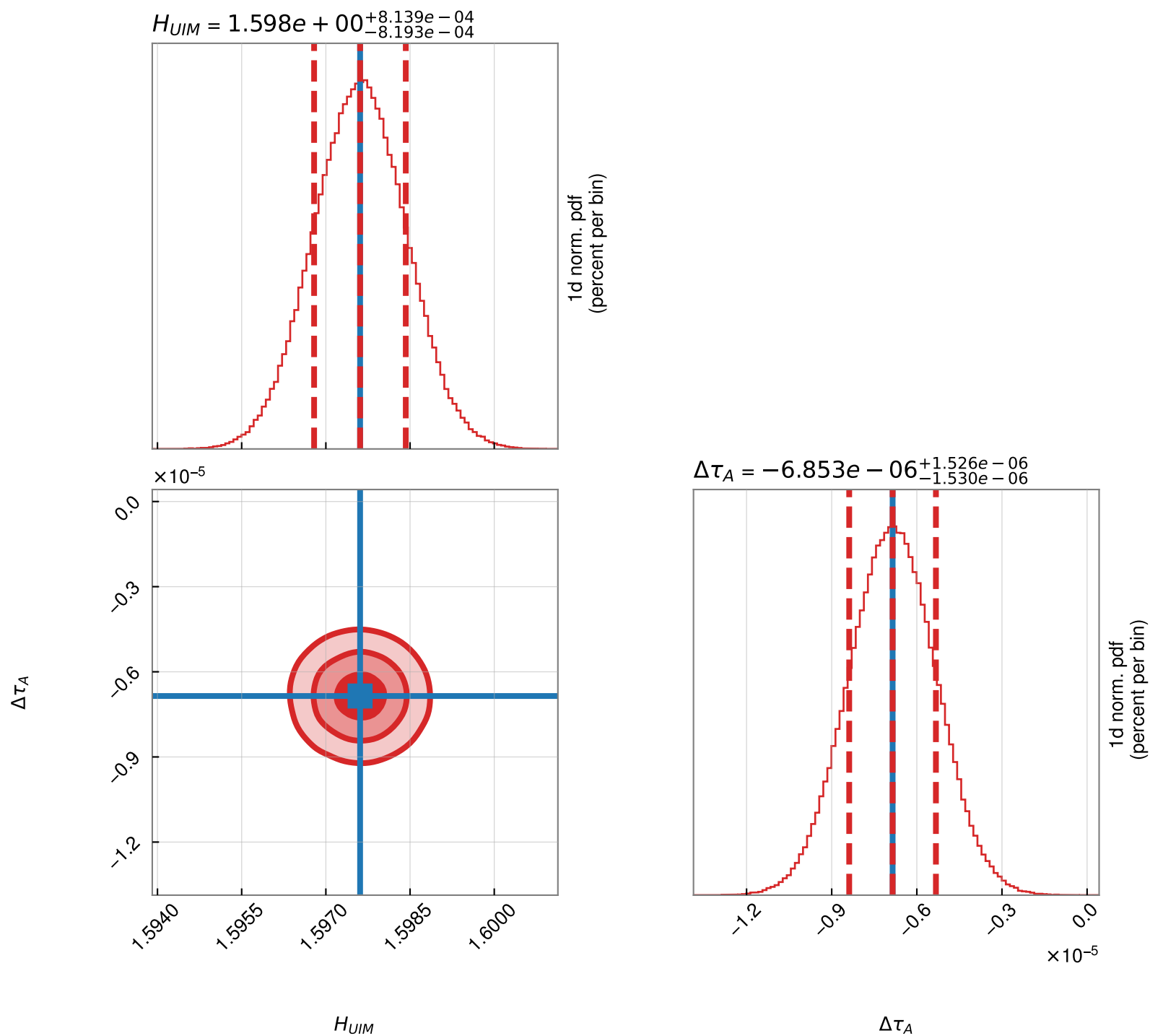
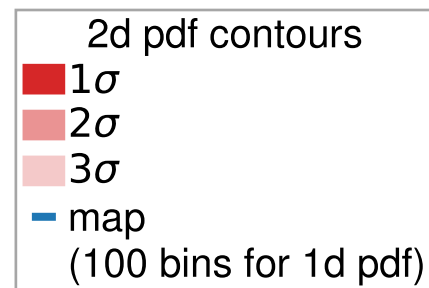
Actuation strength residuals
(meas./model w. free params)



Parameter	(value +/-) value	+	-
Actuation Gain, Hau (N/A)	1.598	0.0008139 (0.05%)	0.0008193 (0.05%)
Residual time delay, tau_A (s)	-6.853e-06	1.526e-06 (-22.26%)	1.53e-06 (-22.33%)

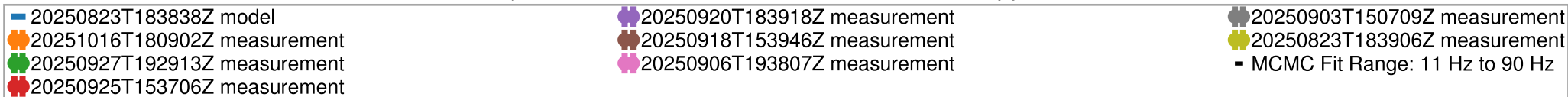
20251016T180902Z EX L1 actuation

MCMC corner plot

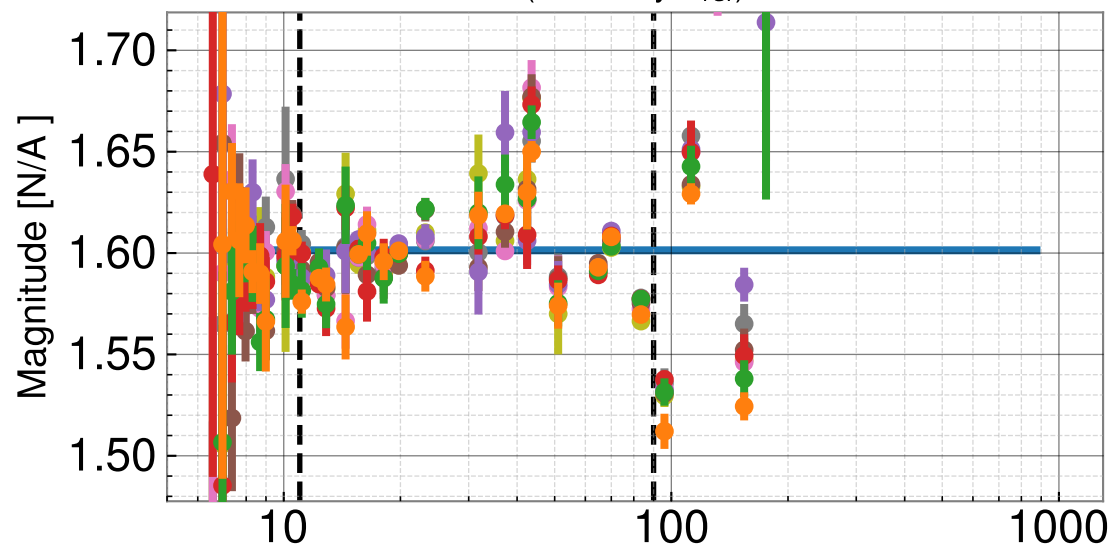


H1SUSEX L1 actuation model history (last 9 measurements)

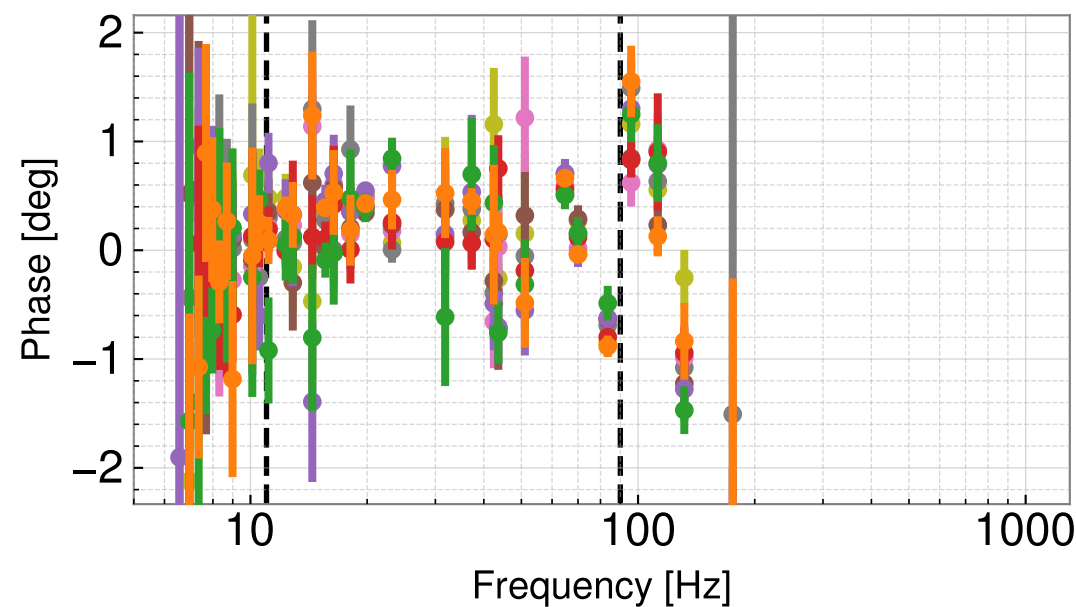
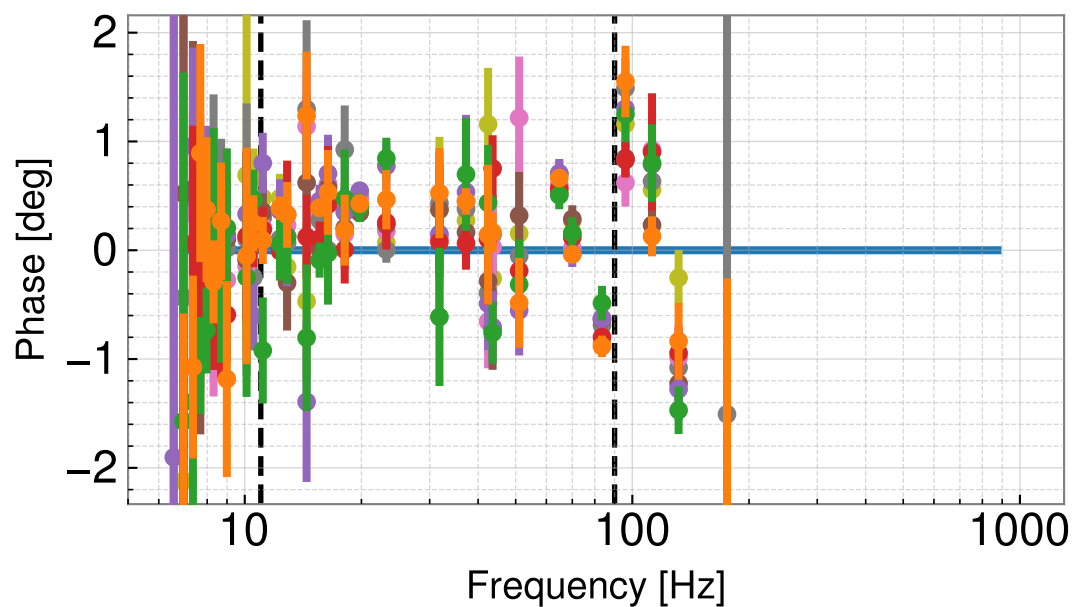
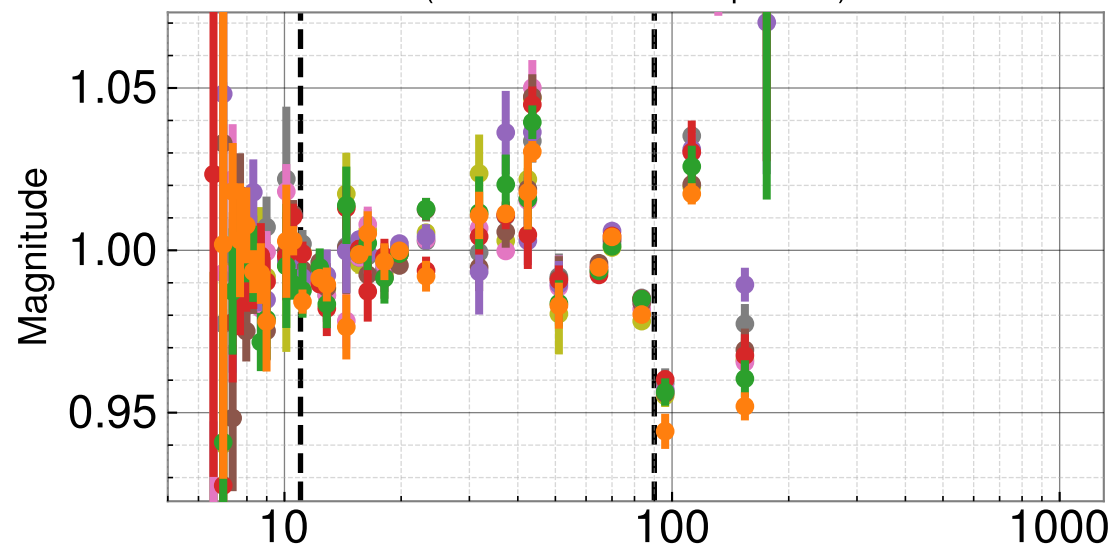
All fixed parameters drawn from 20251016T180834Z/pydarm_H1.ini



Actuation strength transfer functions
(scaled by H_{ref})



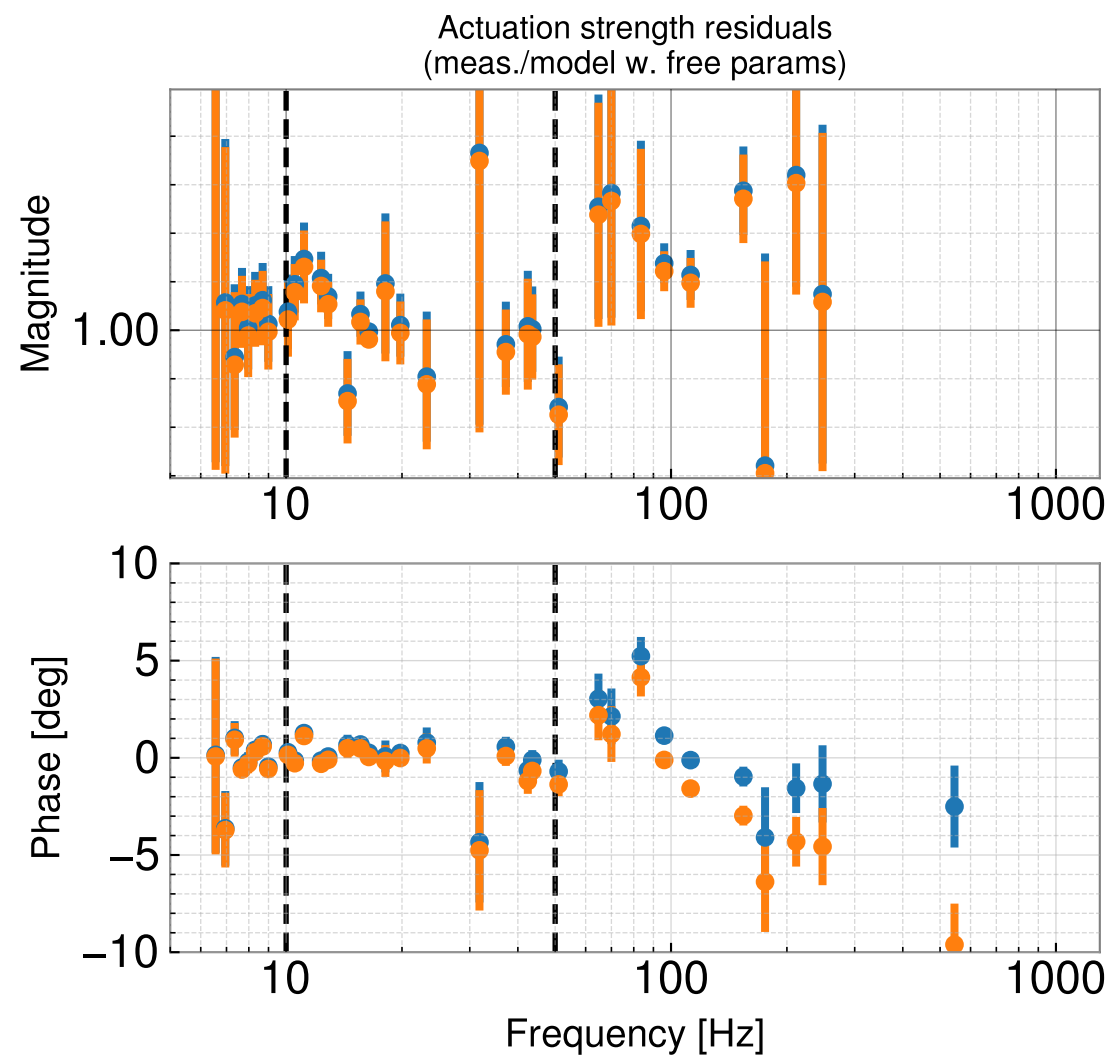
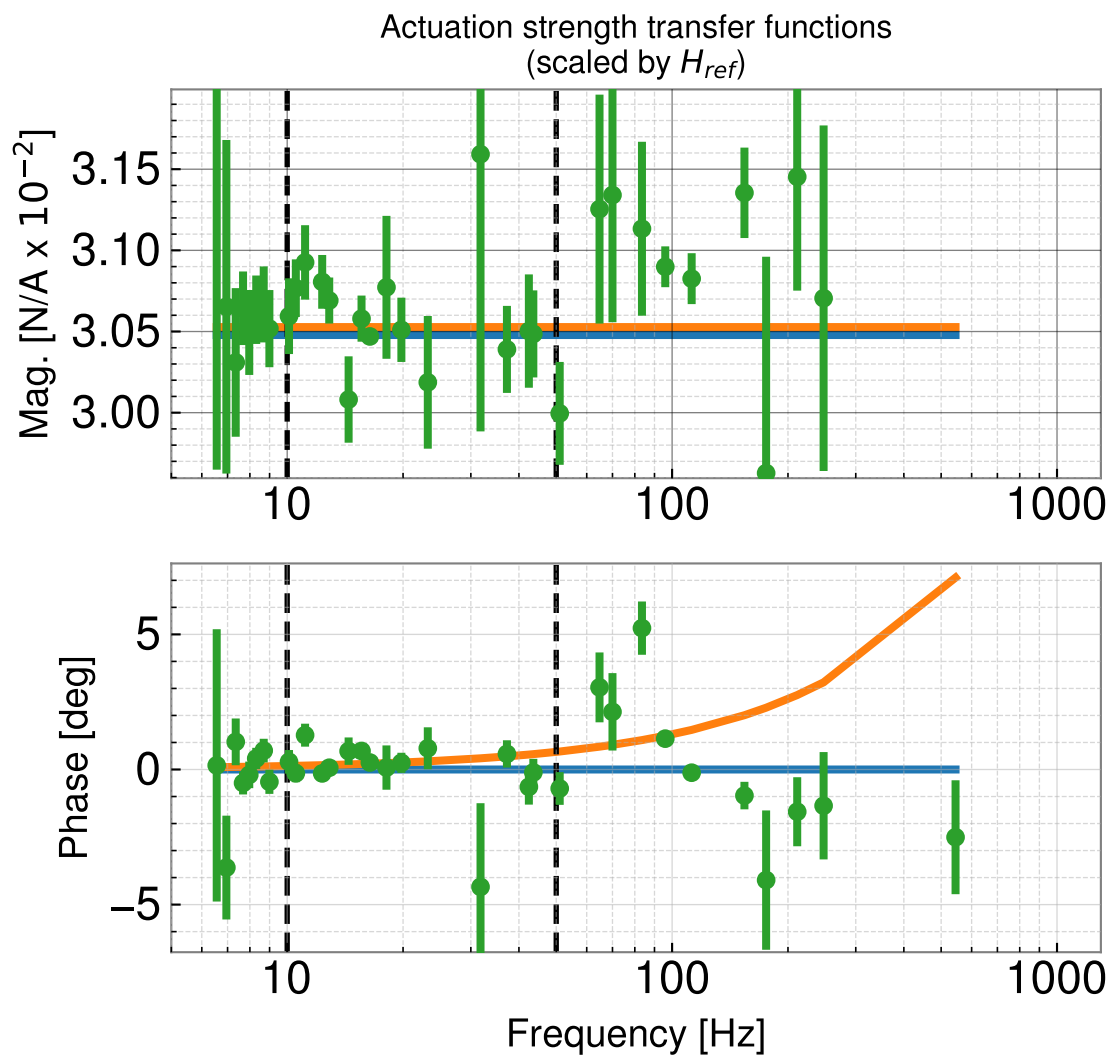
Actuation strength residuals
(meas./model w. free params)



H1SUSEX L2 actuation model MCMC summary

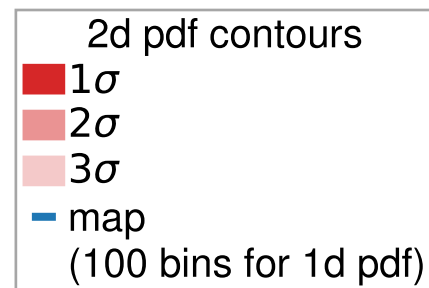
All fixed parameters drawn from 20251016T180834Z/pydarm_H1.ini

— Model w free params from report 20250823T183838Z
— Model w free params from
— MCMC fit to 20251016T180902Z data
■ 20251016T180902Z measurement
— Fit range 10.0 to 50.0 Hz

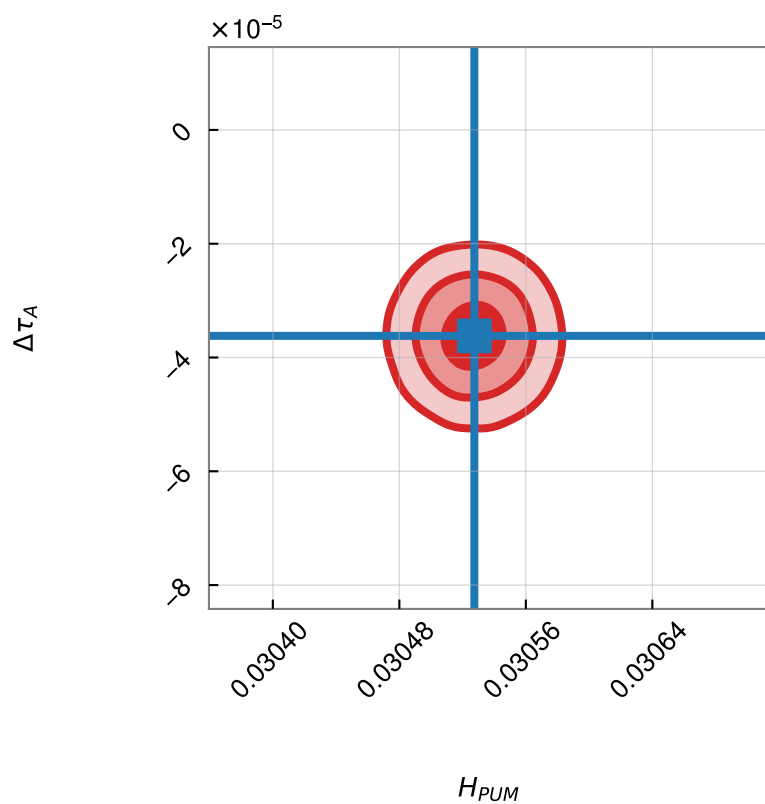
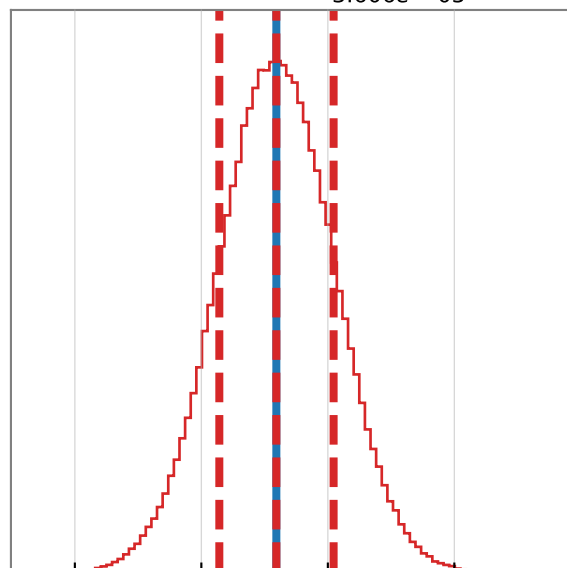


Parameter	(value +/-) value	+	-
Actuation Gain, Hap (N/A)	0.03053	3.622e-05 (0.12%)	3.606e-05 (0.12%)
Residual time delay, tau_A (s)	-3.62e-05	1.064e-05 (-29.38%)	1.064e-05 (-29.40%)

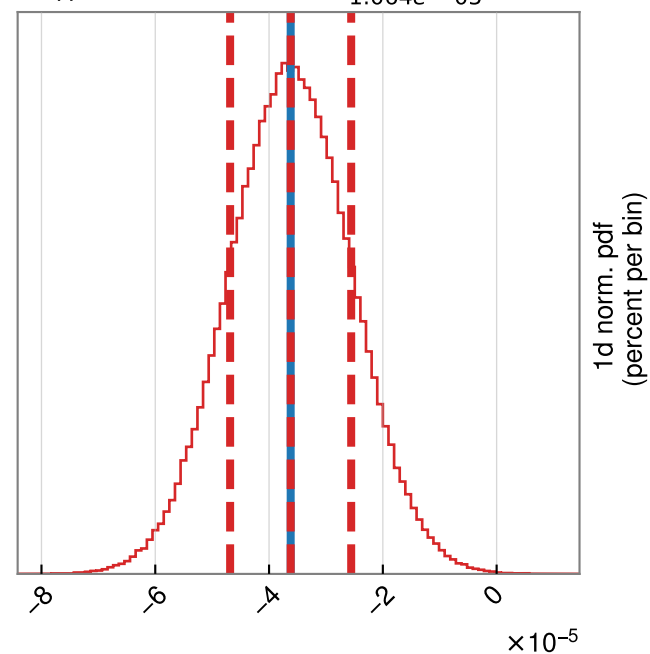
20251016T180902Z EX L2 actuation MCMC corner plot



$$H_{PUM} = 3.053e - 02^{+3.622e - 05}_{-3.606e - 05}$$

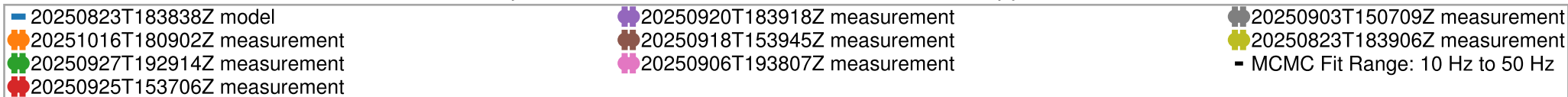


$$\Delta\tau_A = -3.620e - 05^{+1.064e - 05}_{-1.064e - 05}$$

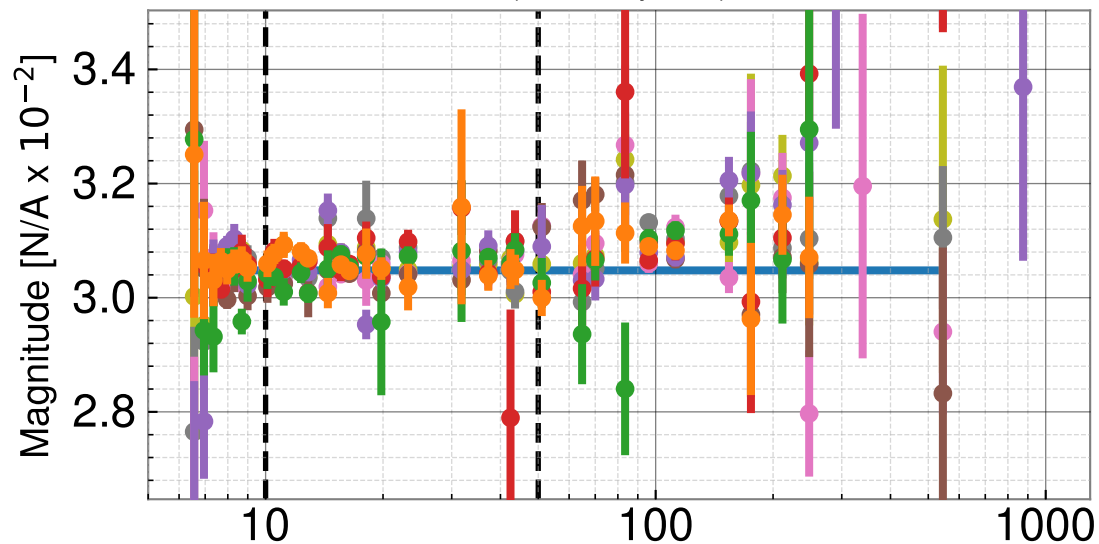


H1SUSEX L2 actuation model history (last 9 measurements)

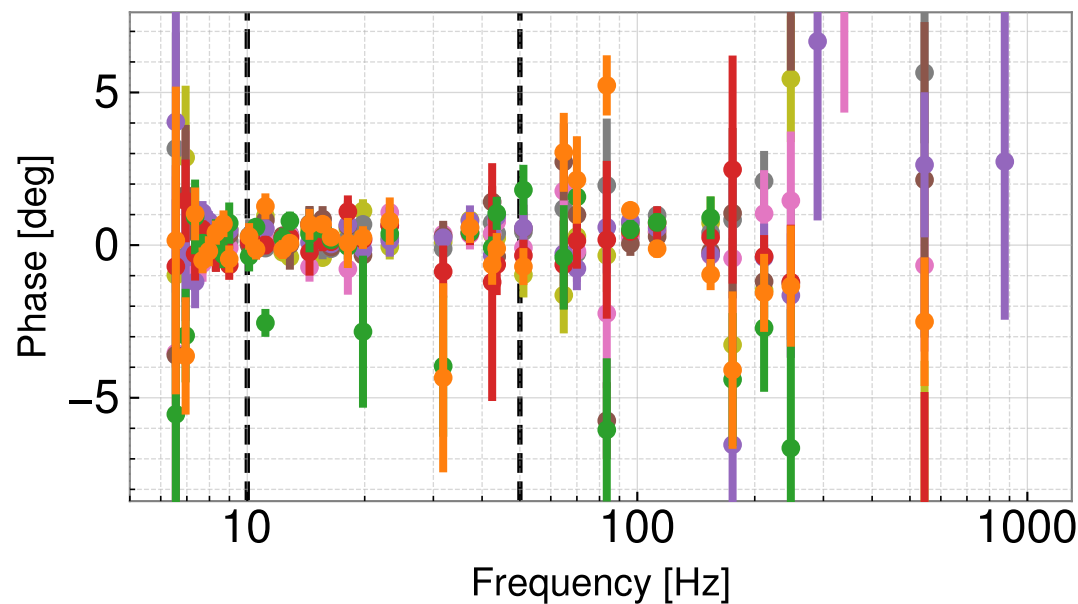
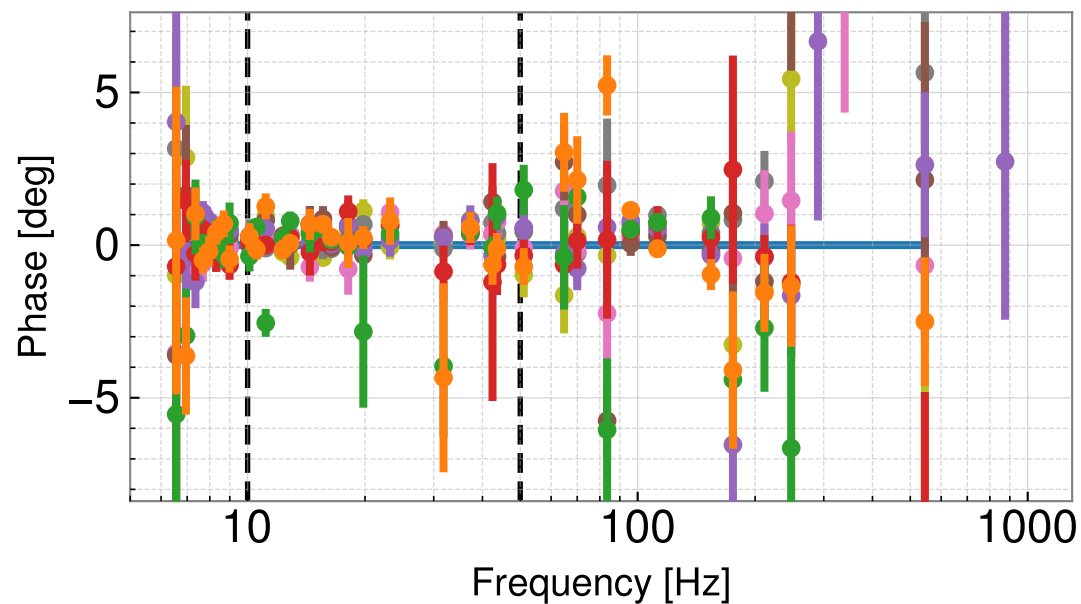
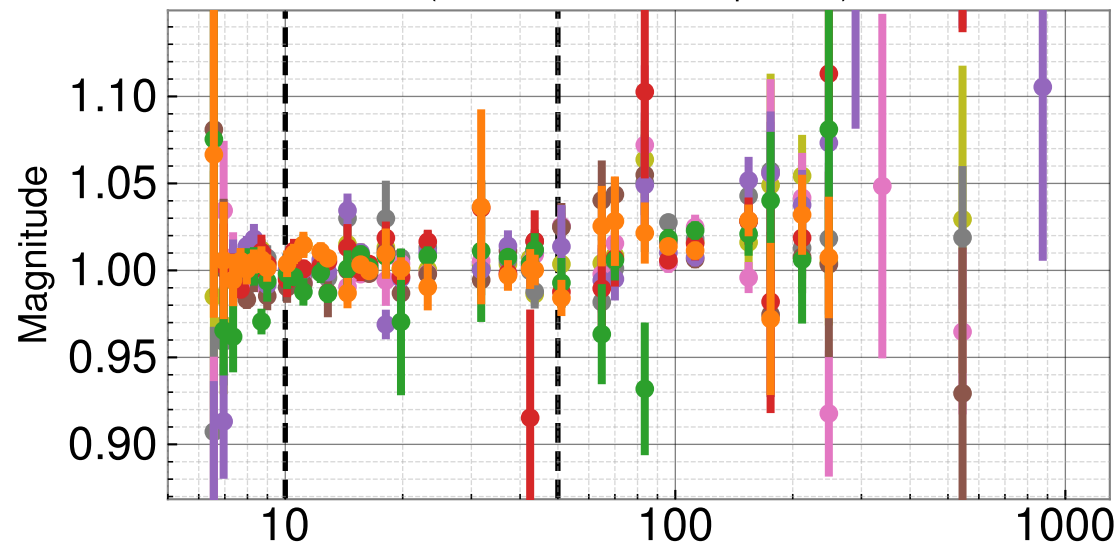
All fixed parameters drawn from 20251016T180834Z/pydarm_H1.ini



Actuation strength transfer functions
(scaled by H_{ref})

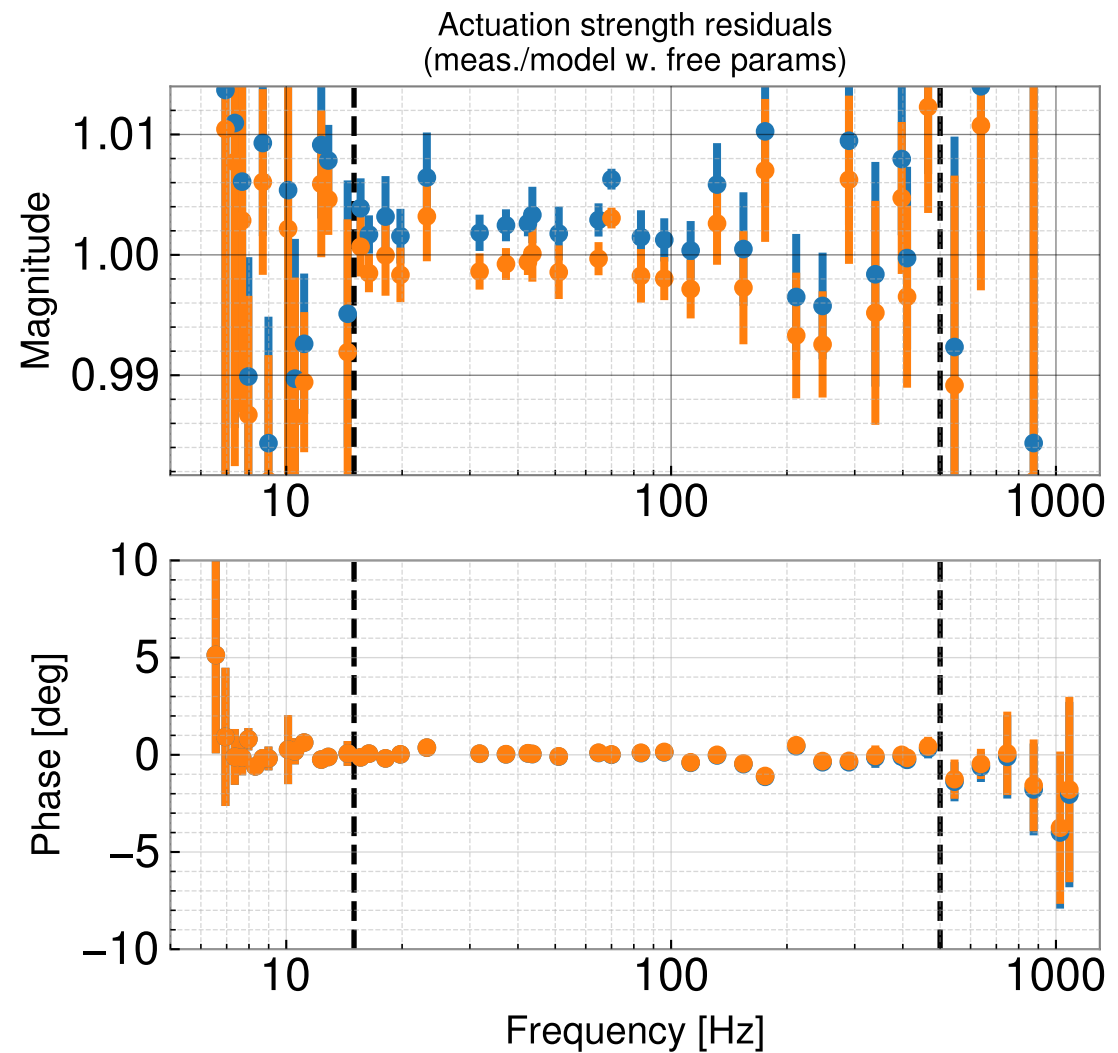
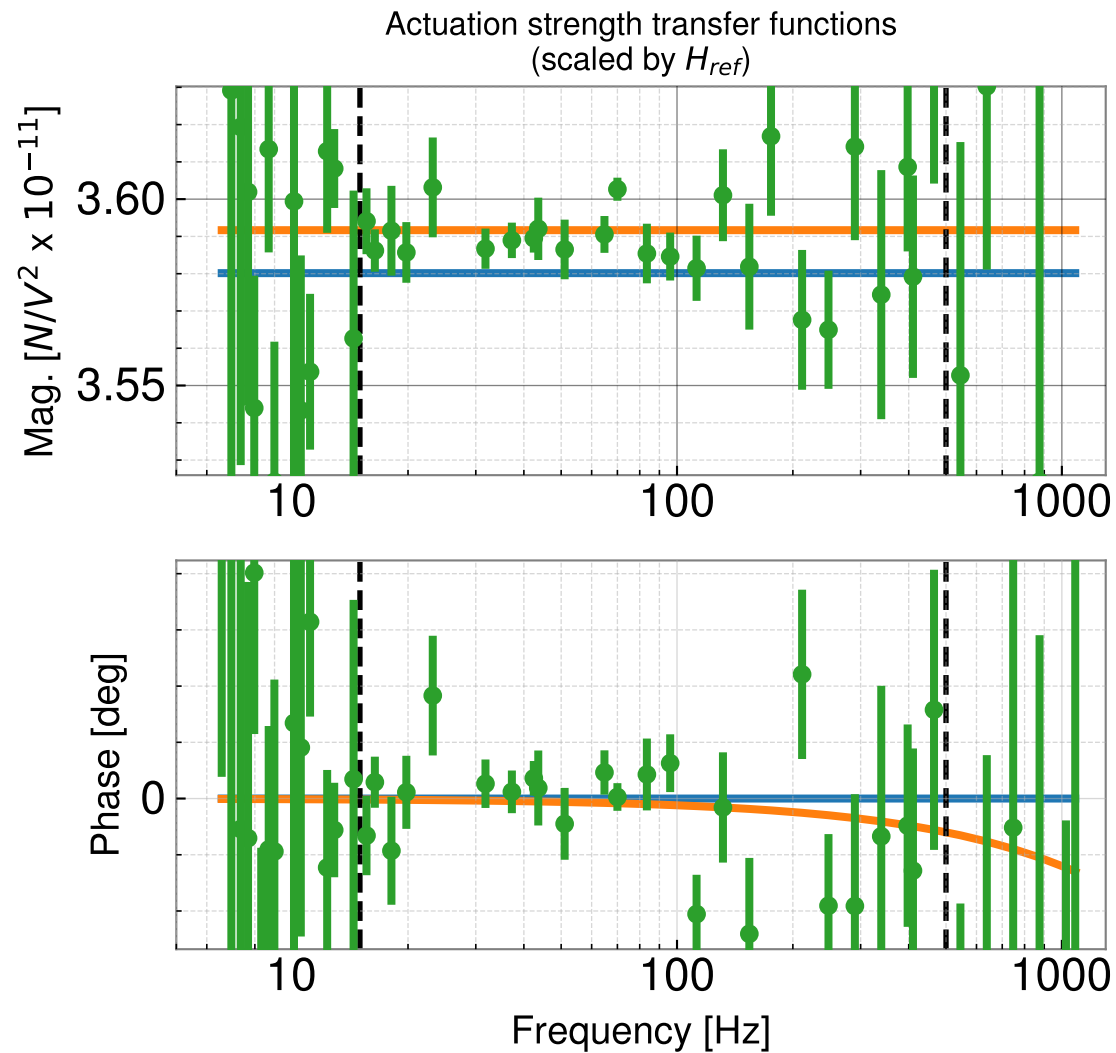
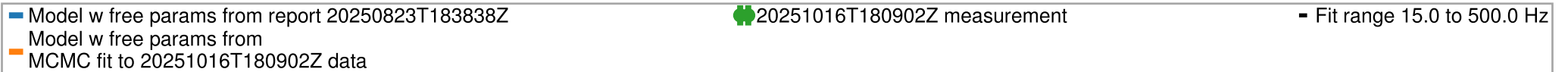


Actuation strength residuals
(meas./model w. free params)



H1SUSEX L3 actuation model MCMC summary

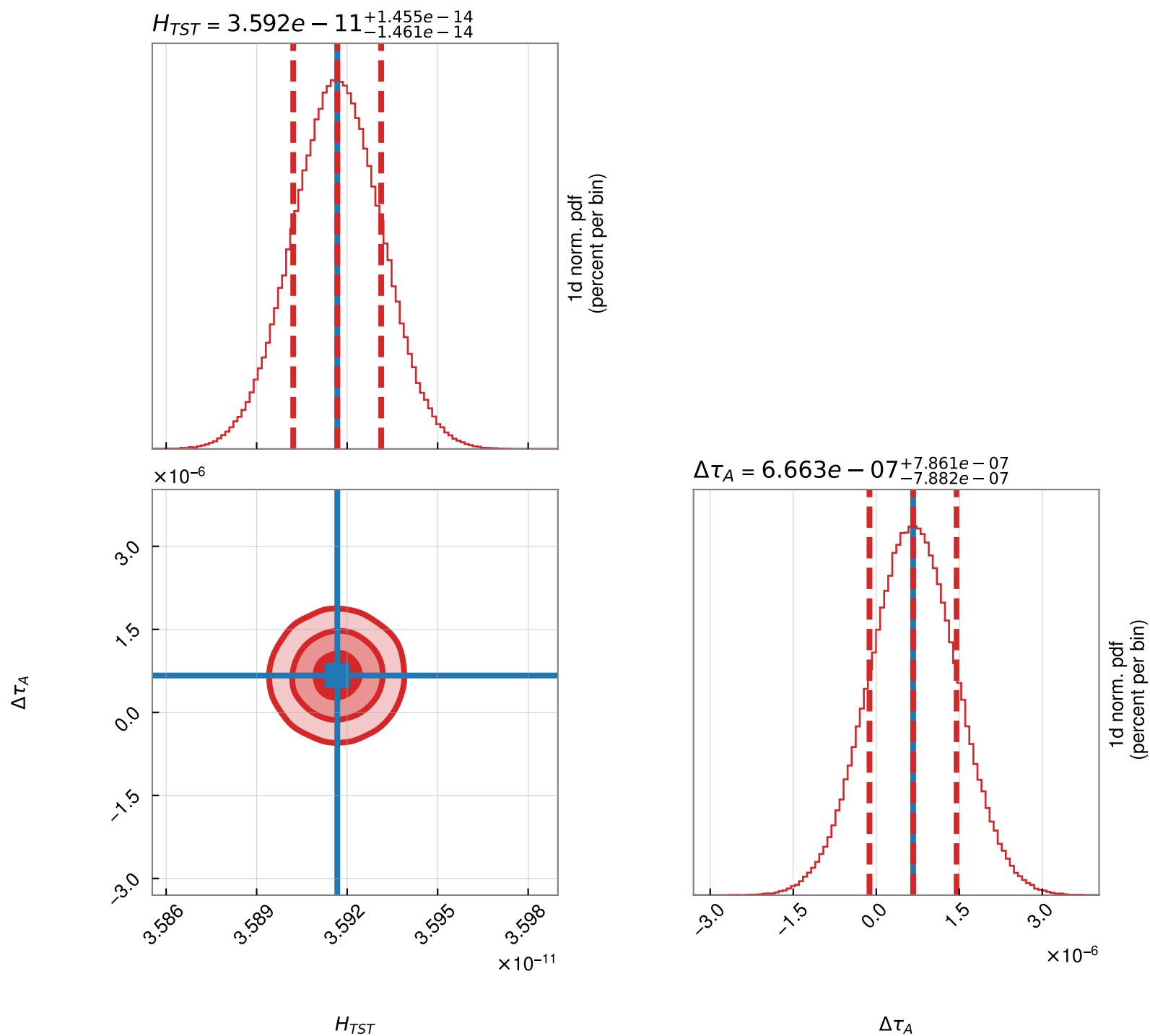
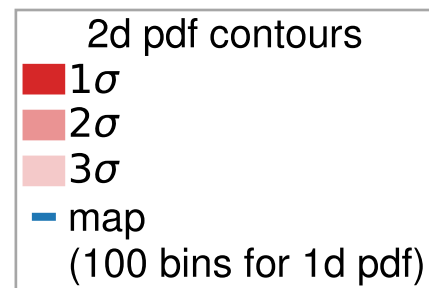
All fixed parameters drawn from 20251016T180834Z/pydarm_H1.ini



Parameter	(value +/-)	value	+	-
Actuation Gain, Hat (N/V**2)		3.592e-11	1.455e-14 (0.04%)	1.461e-14 (0.04%)
Residual time delay, tau A (s)		6.663e-07	7.861e-07 (117.98%)	7.882e-07 (118.29%)

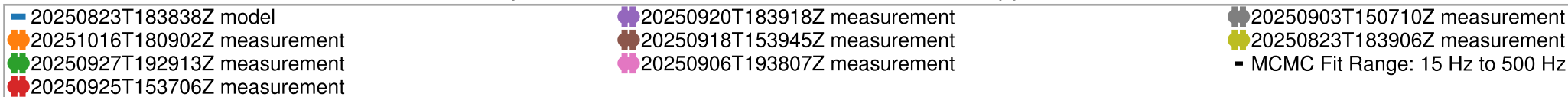
20251016T180902Z EX L3 actuation

MCMC corner plot

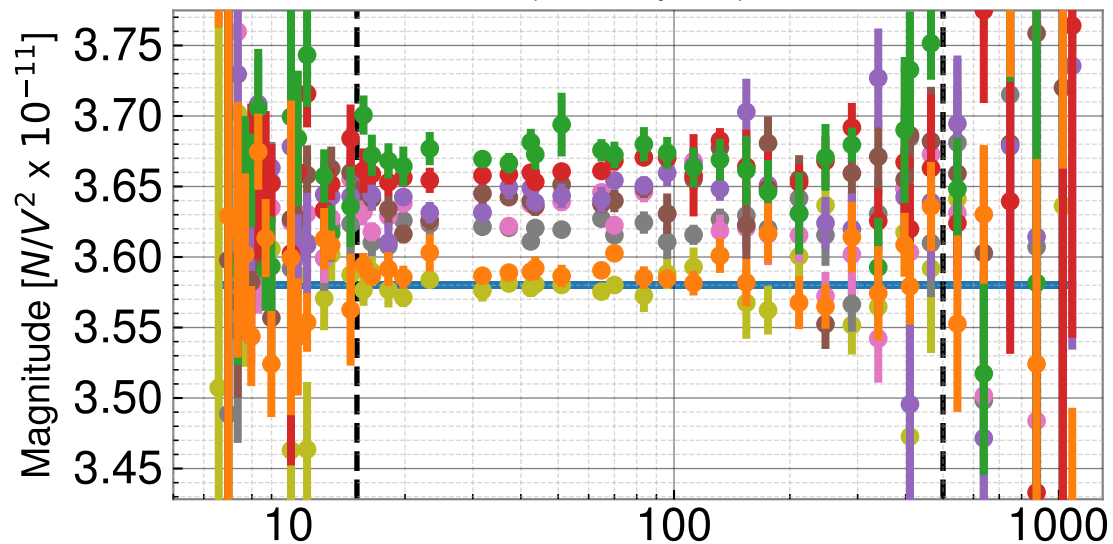


H1SUSEX L3 actuation model history (last 9 measurements)

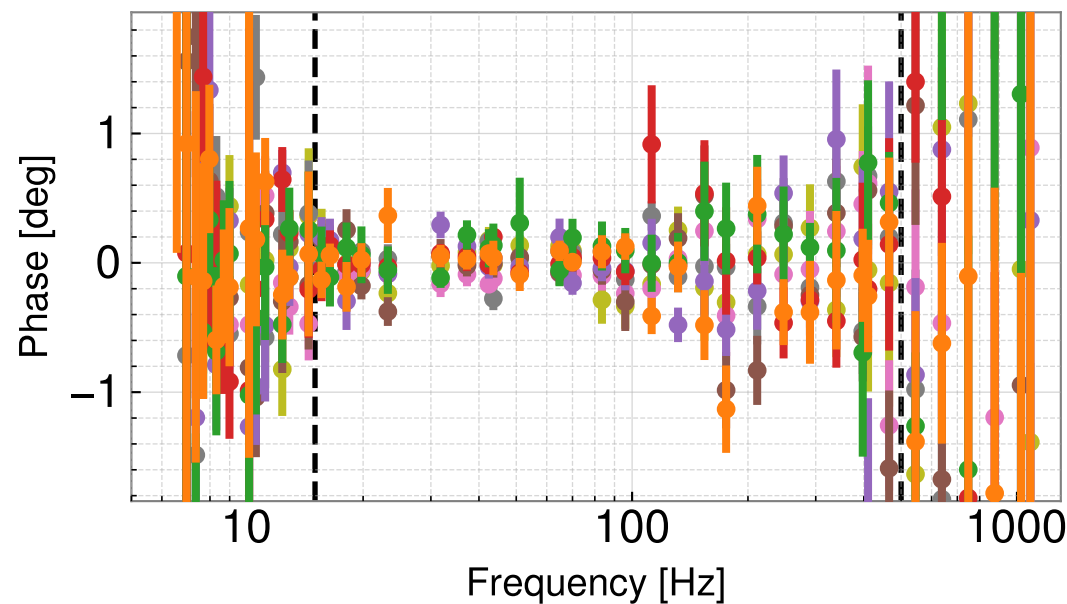
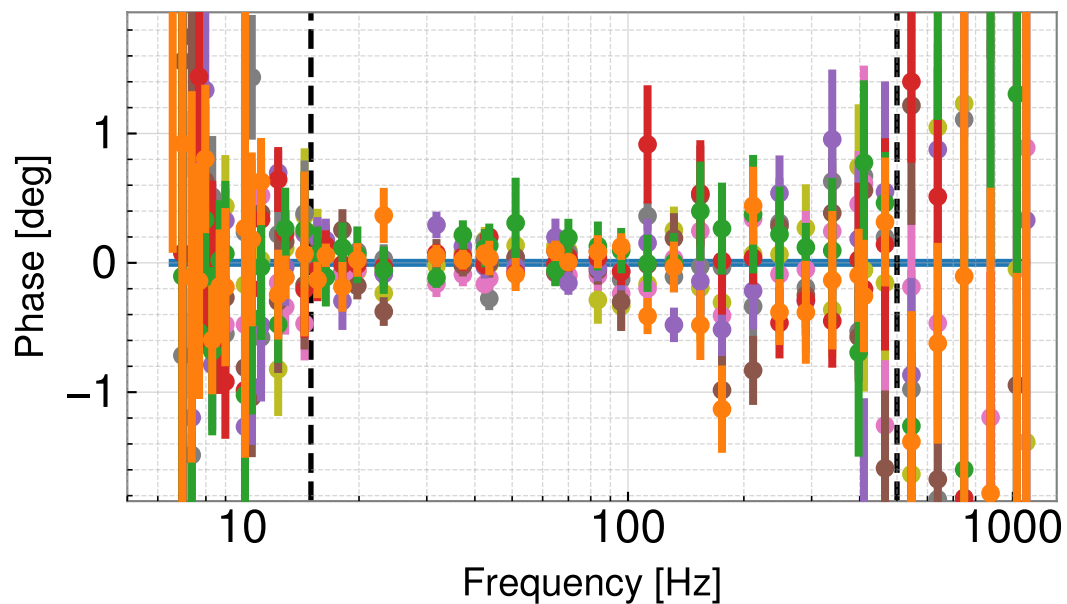
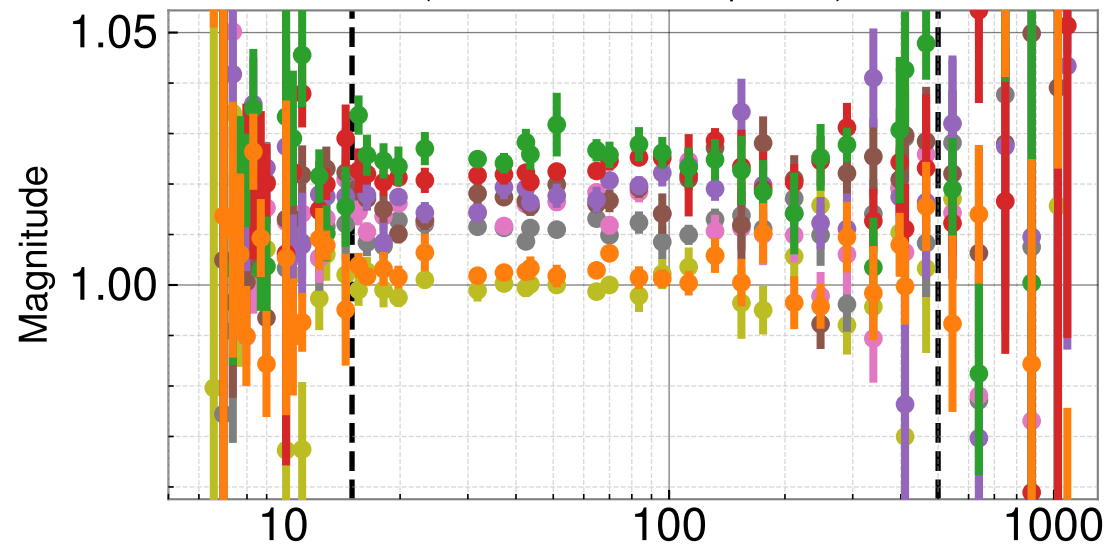
All fixed parameters drawn from 20251016T180834Z/pydarm_H1.ini



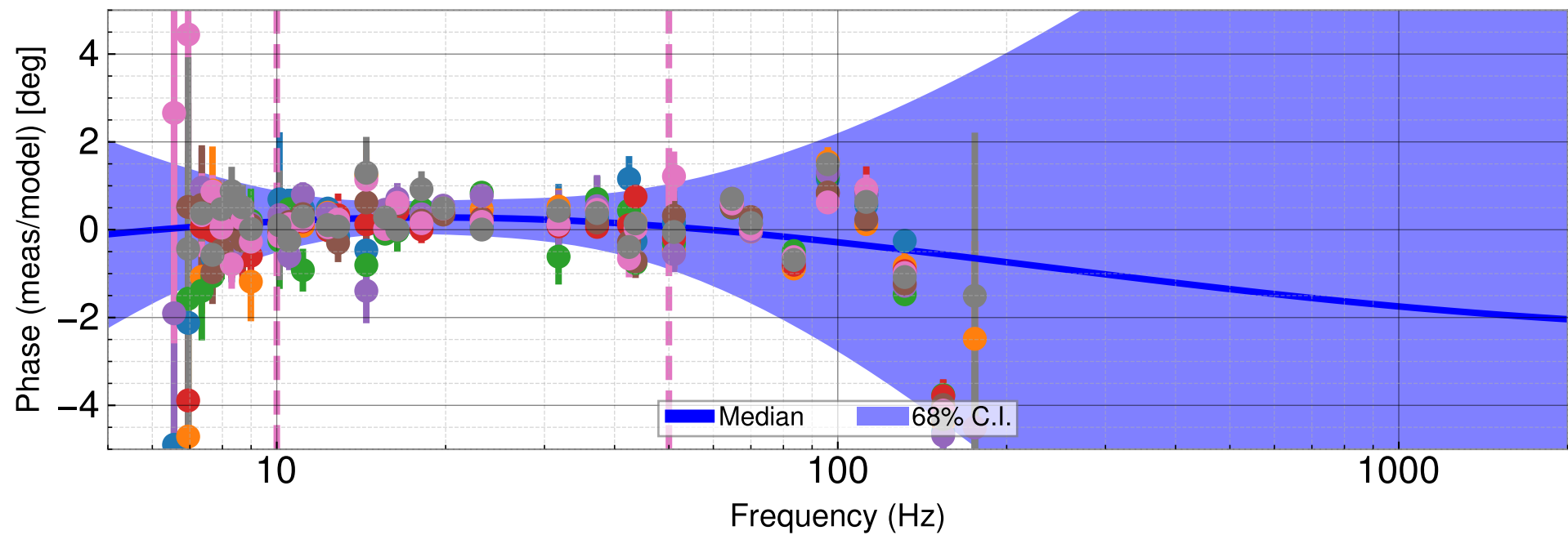
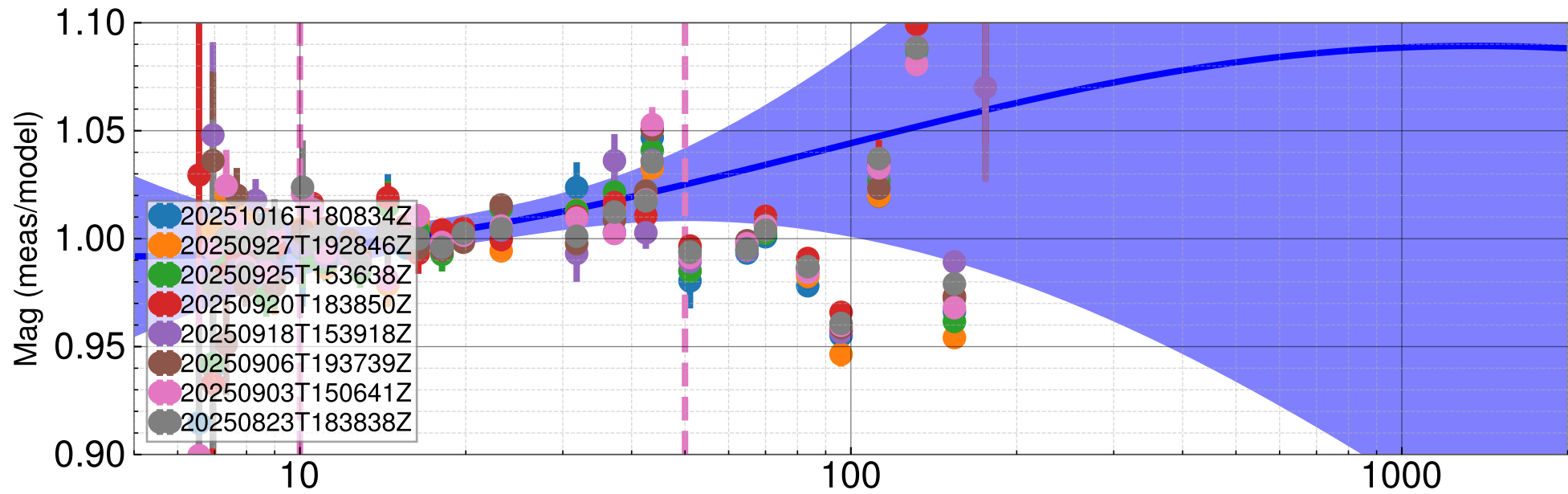
Actuation strength transfer functions
(scaled by H_{ref})



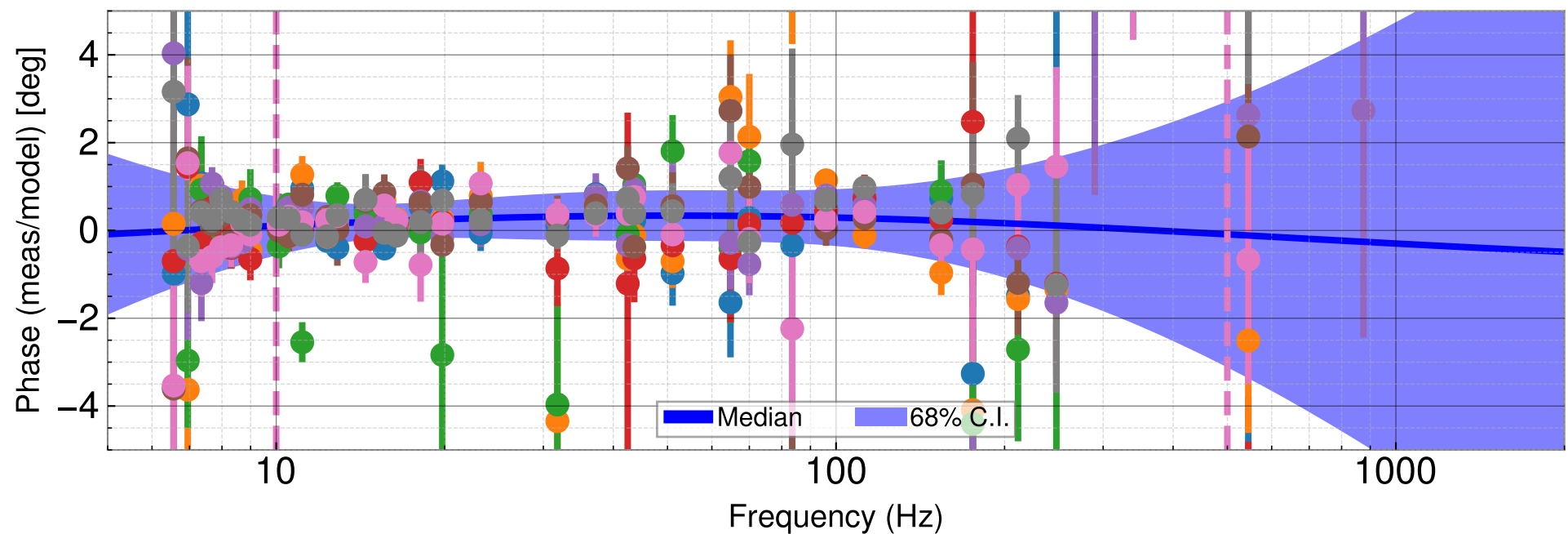
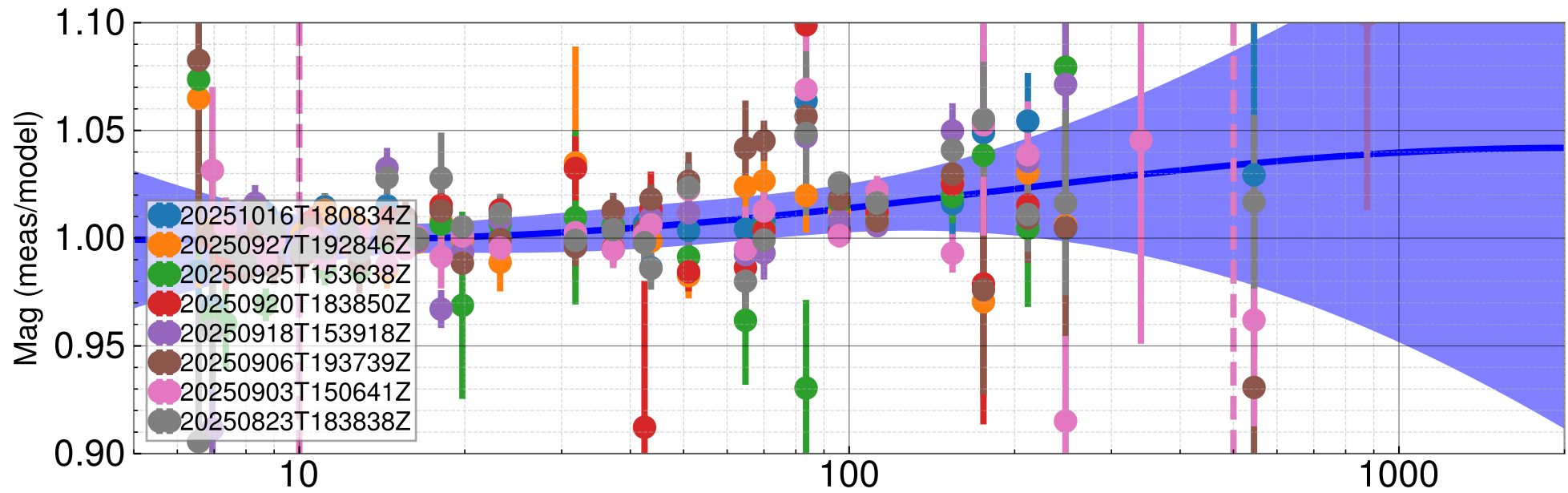
Actuation strength residuals
(meas./model w. free params)



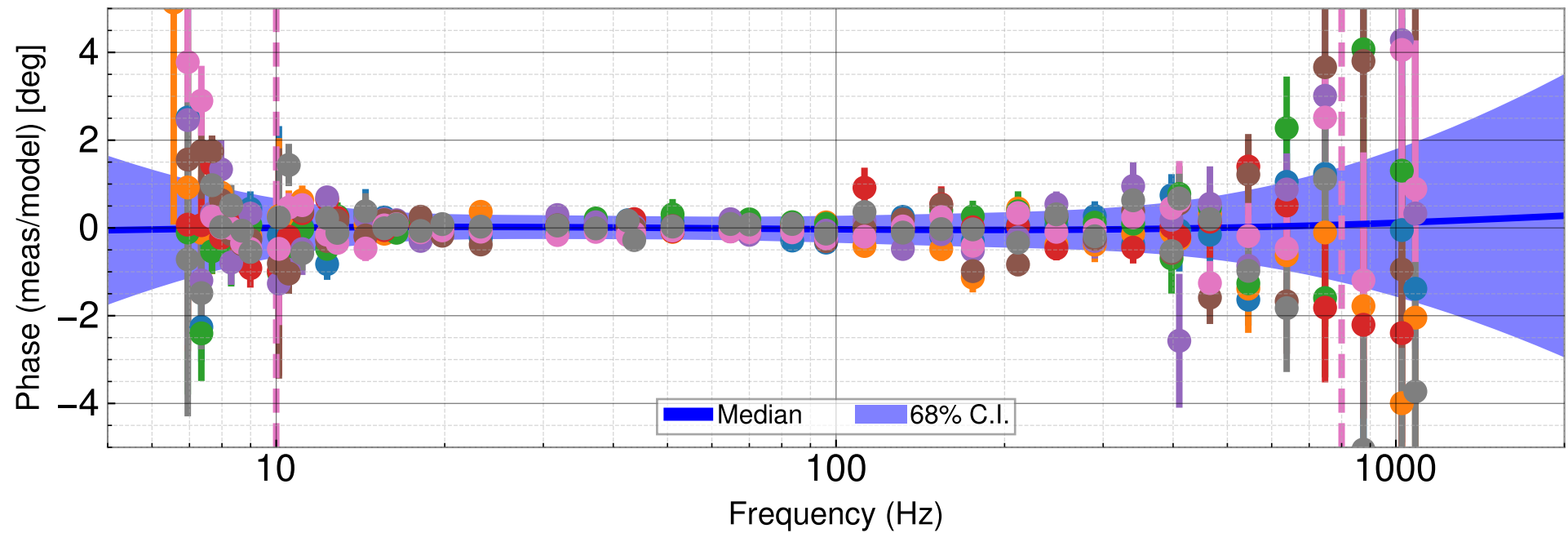
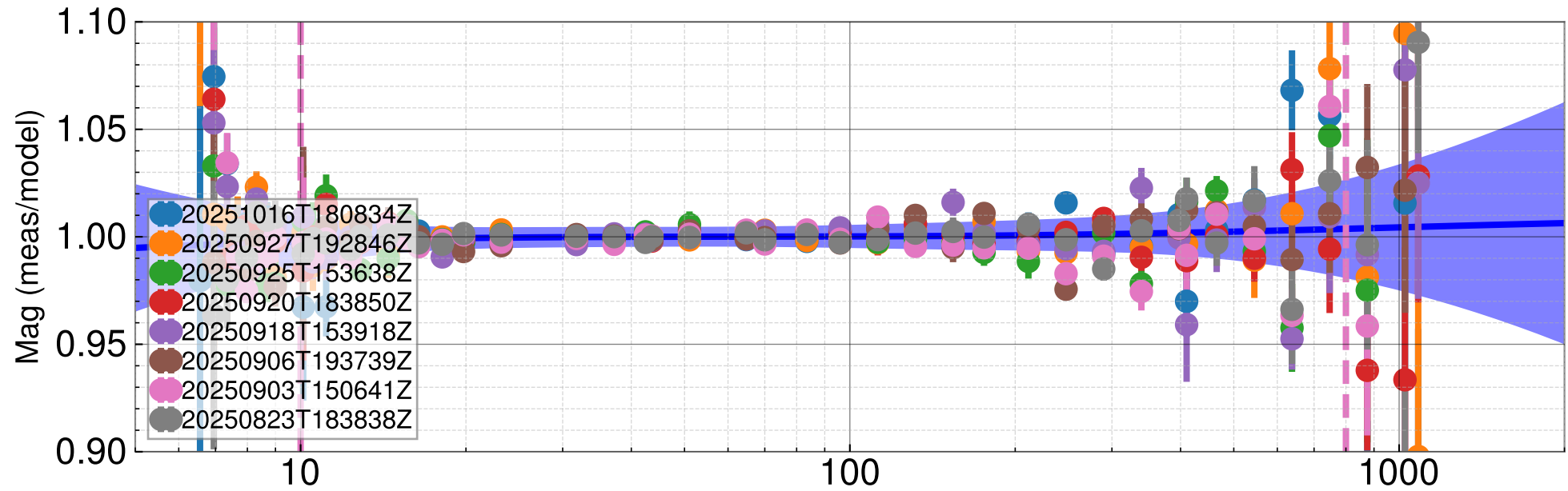
Actuation/L1/EX GPR



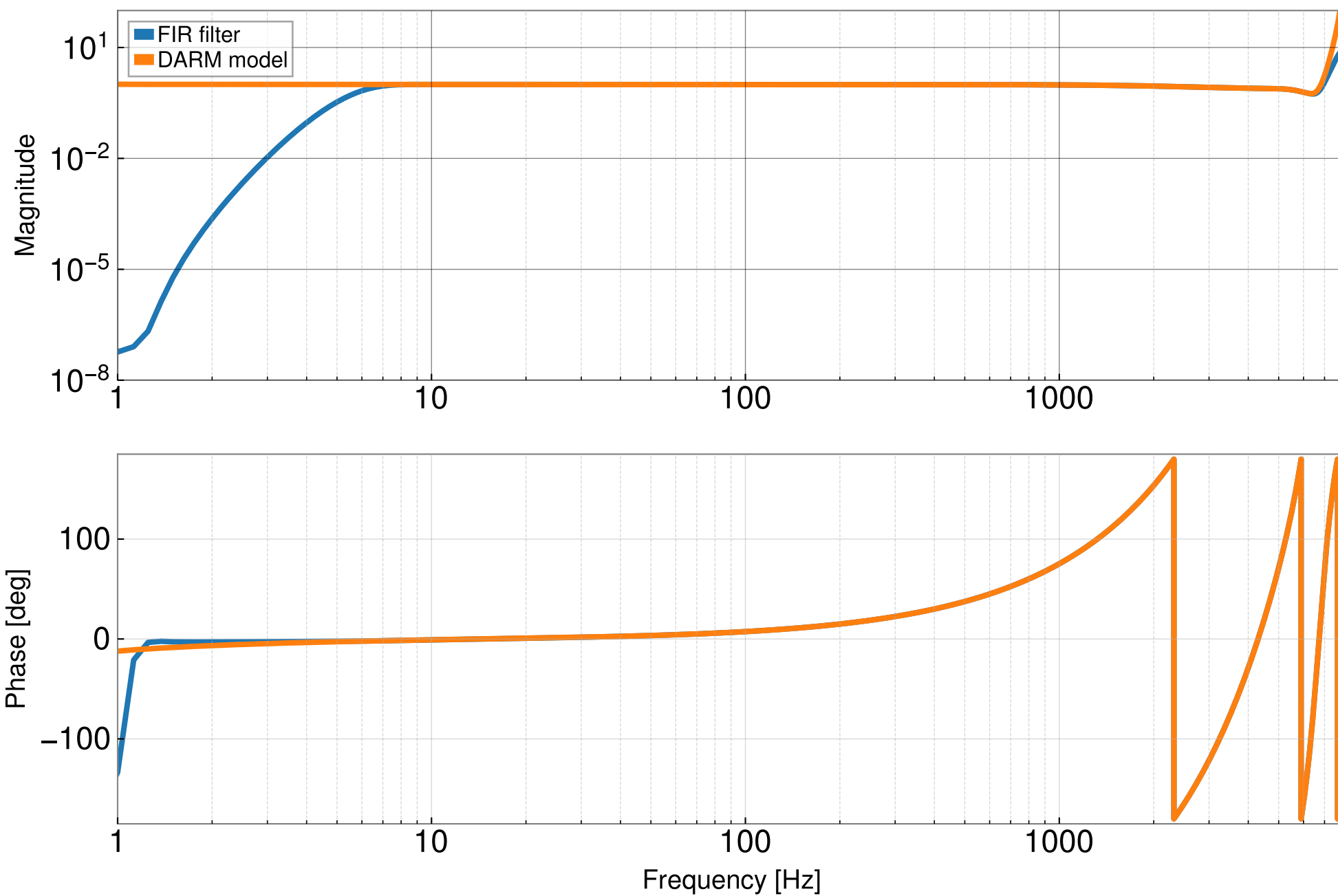
Actuation/L2/EX GPR



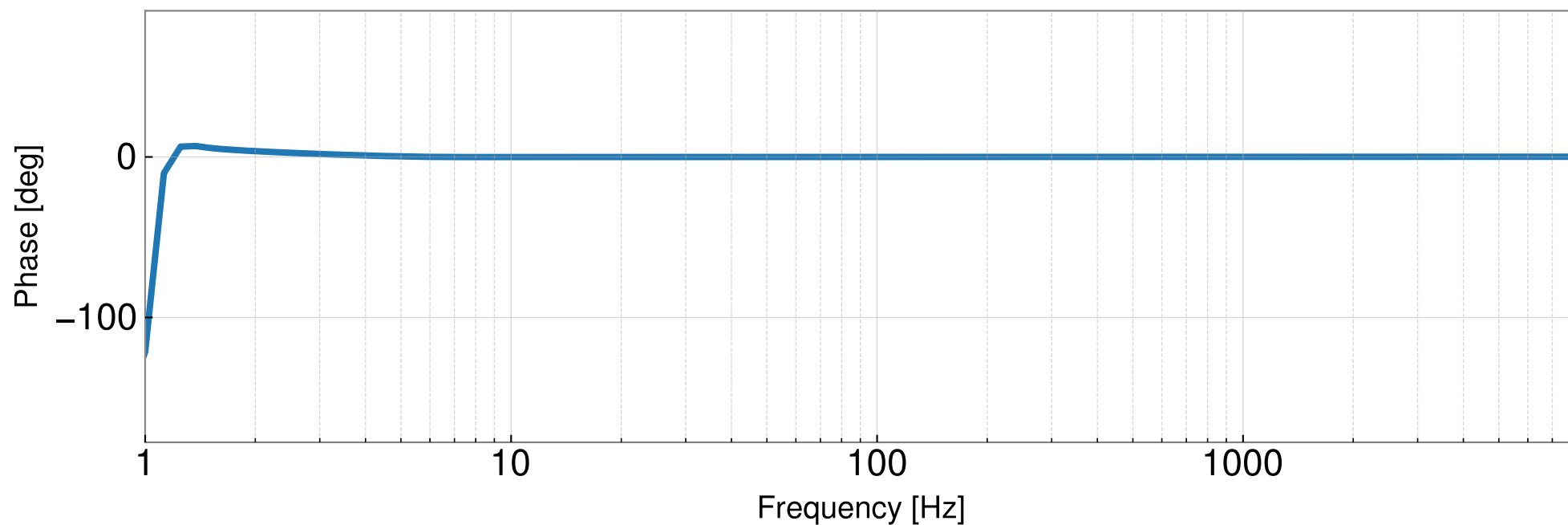
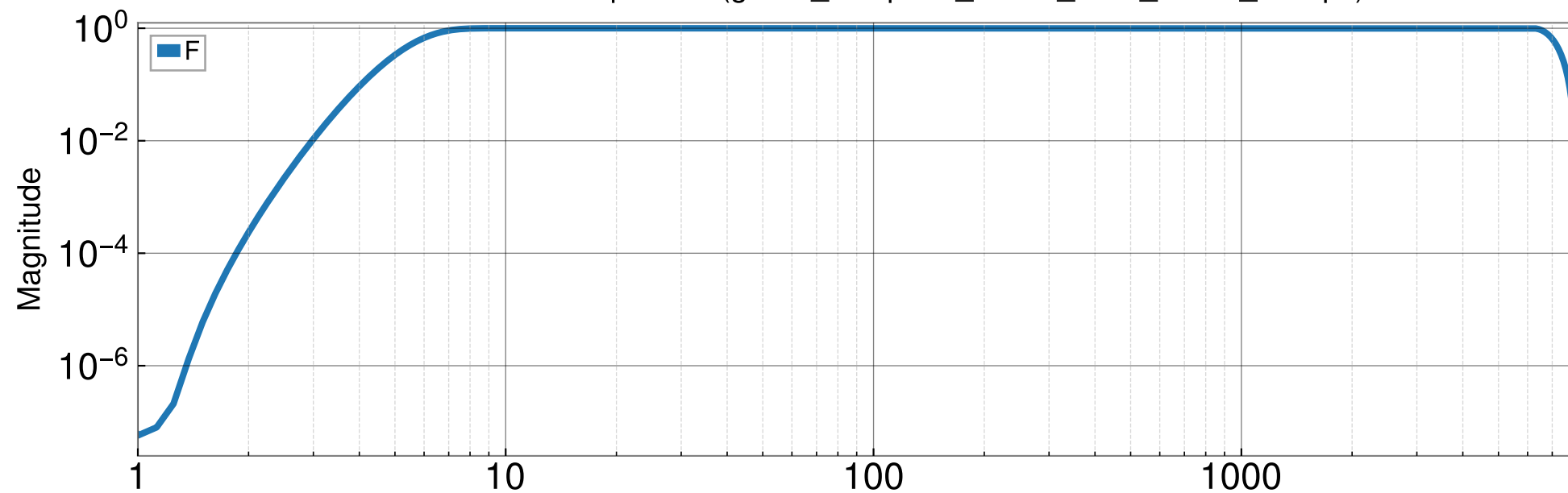
Actuation/L3/EX GPR

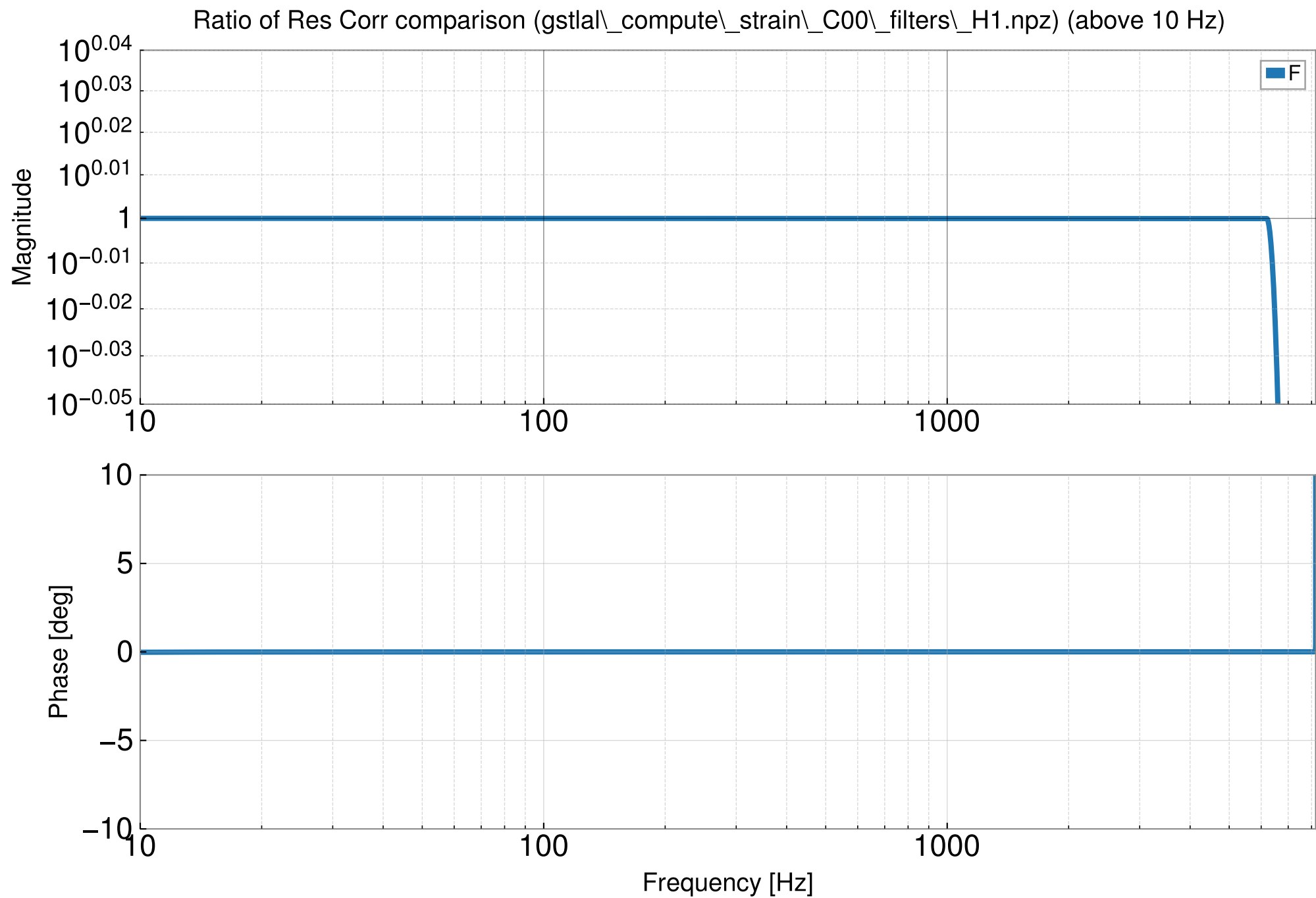


Res Corr comparison (gstlal_compute_strain_C00_filters_H1.npz)



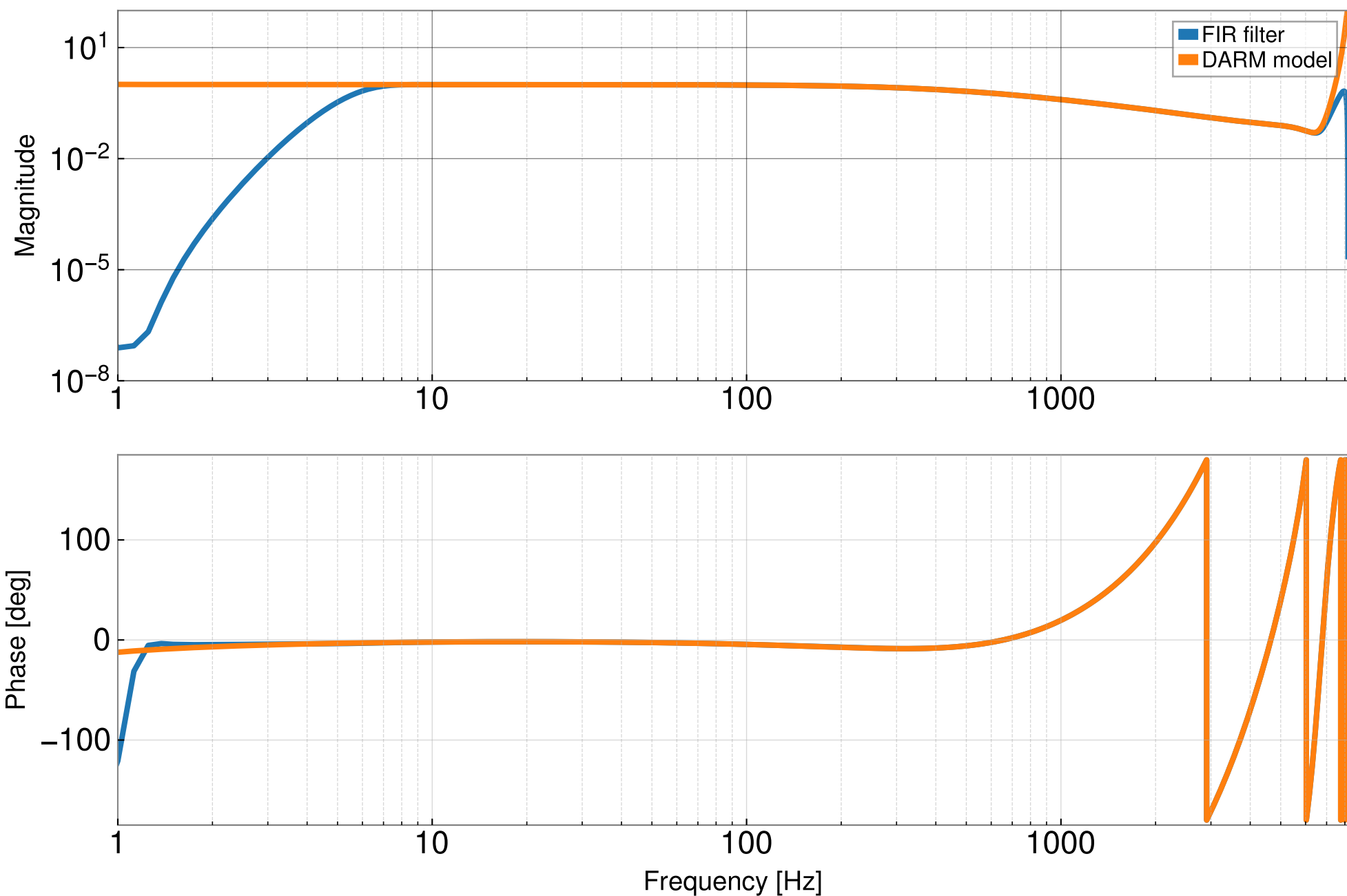
Ratio of Res Corr comparison (gstlal_compute_strain_C00_filters_H1.npz)





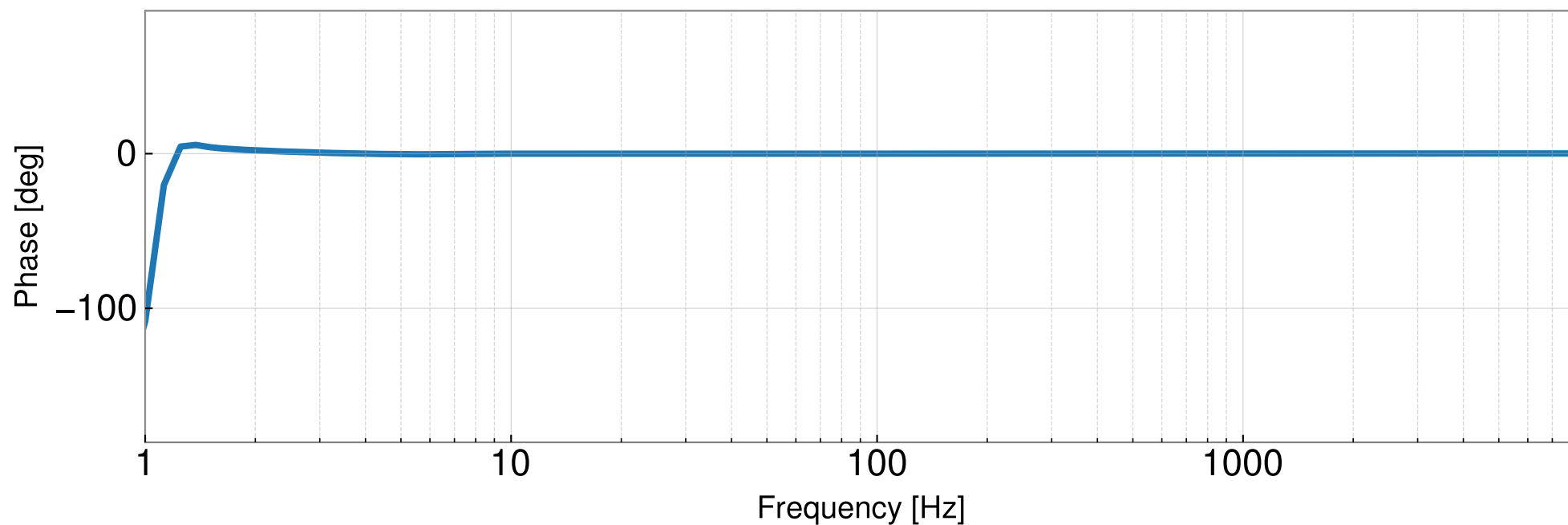
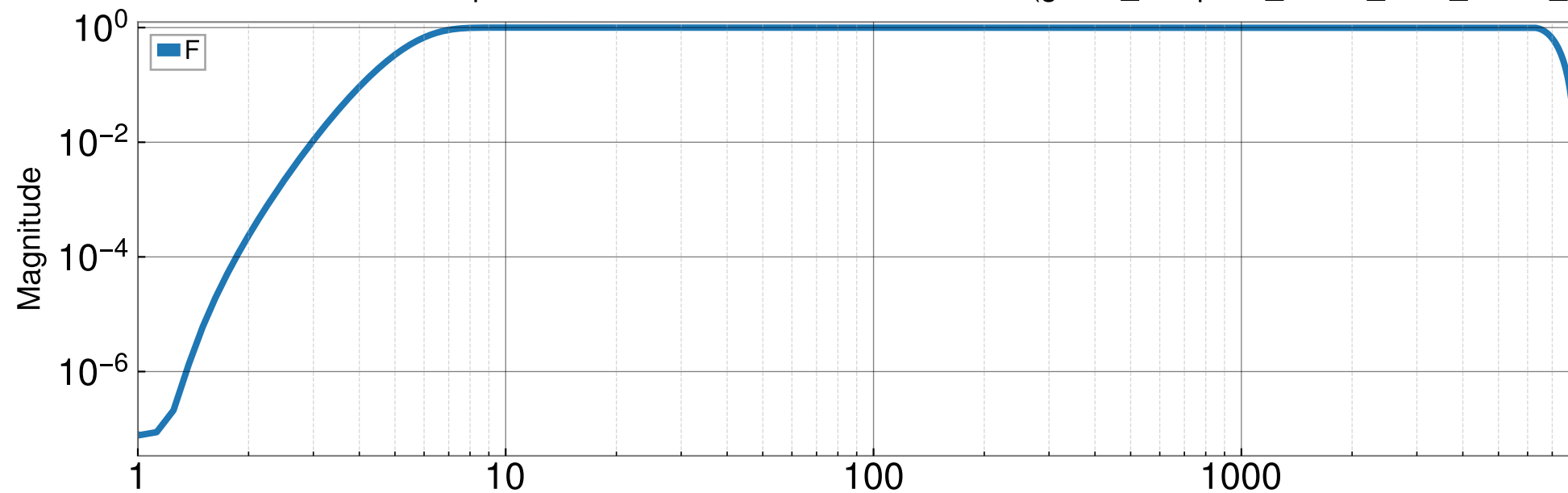
Res Corr No CC Pole comparison

(gstlal_compute_strain_C00_filters_H1.npz)



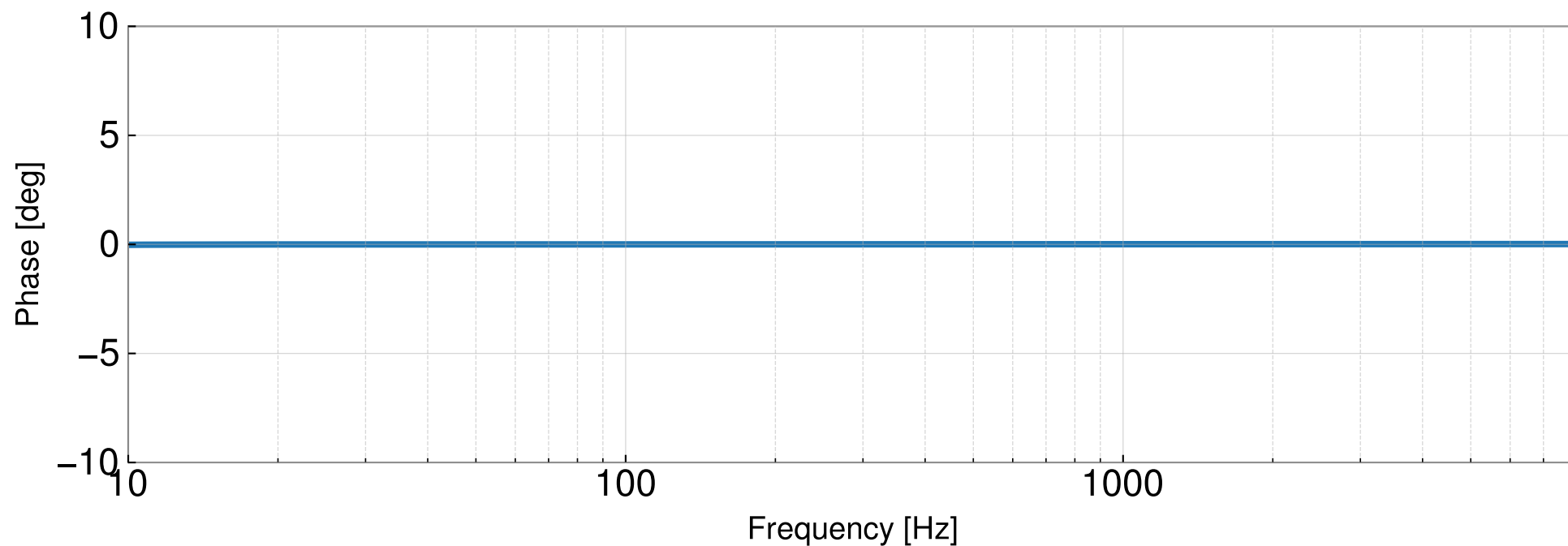
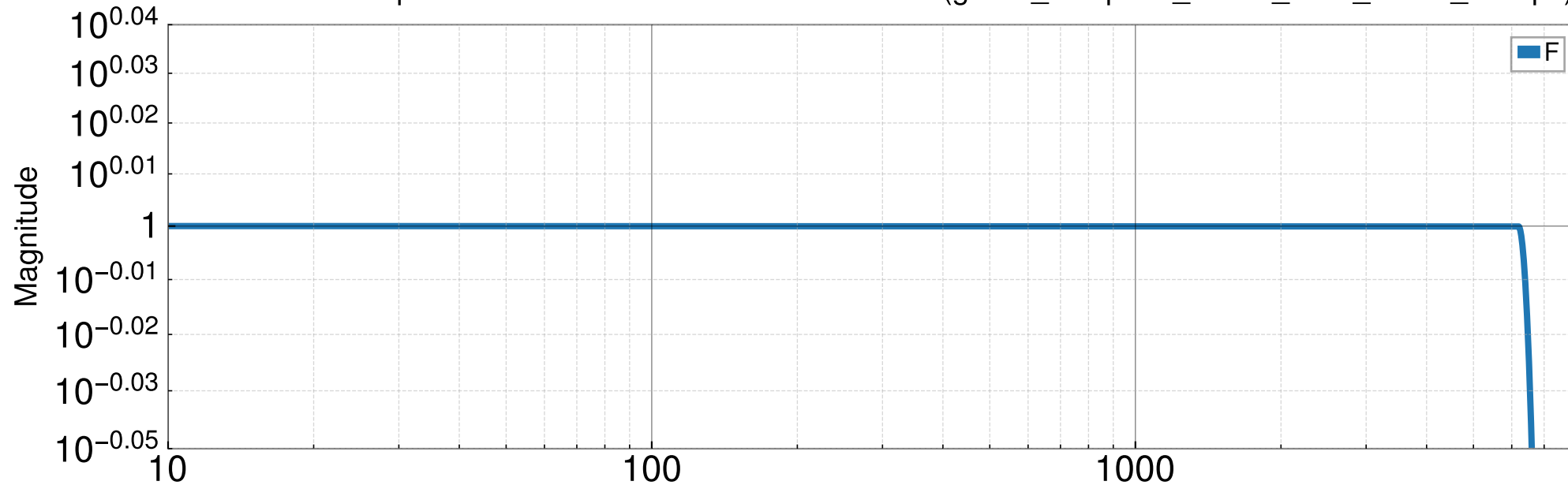
Ratio of Res Corr No CC Pole comparison

(gstlal_compute_strain_C00_filters_H1.npz)



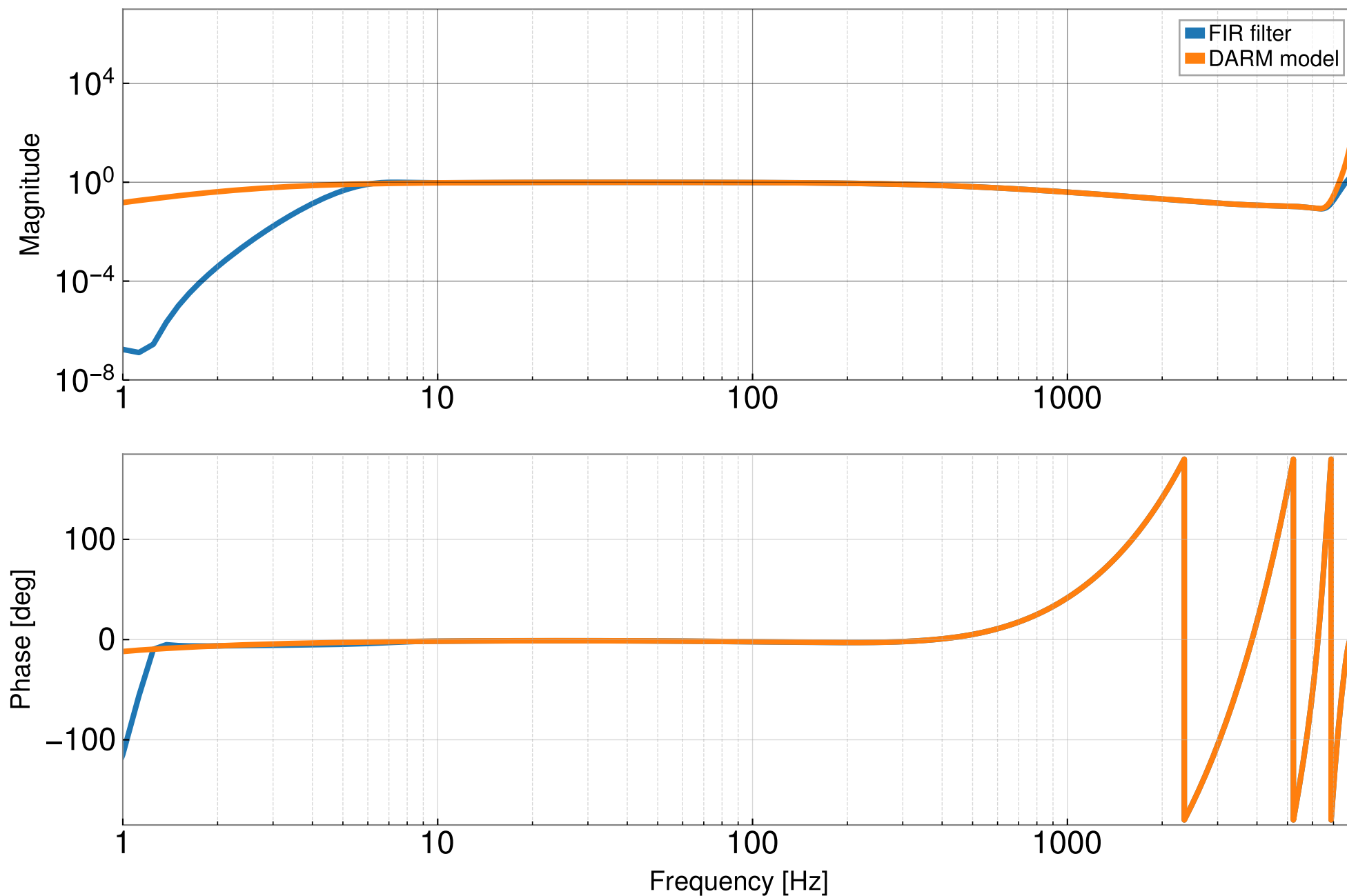
Ratio of Res Corr No CC Pole comparison

(gstlal_compute_strain_C00_filters_H1.npz) (above 10 Hz)



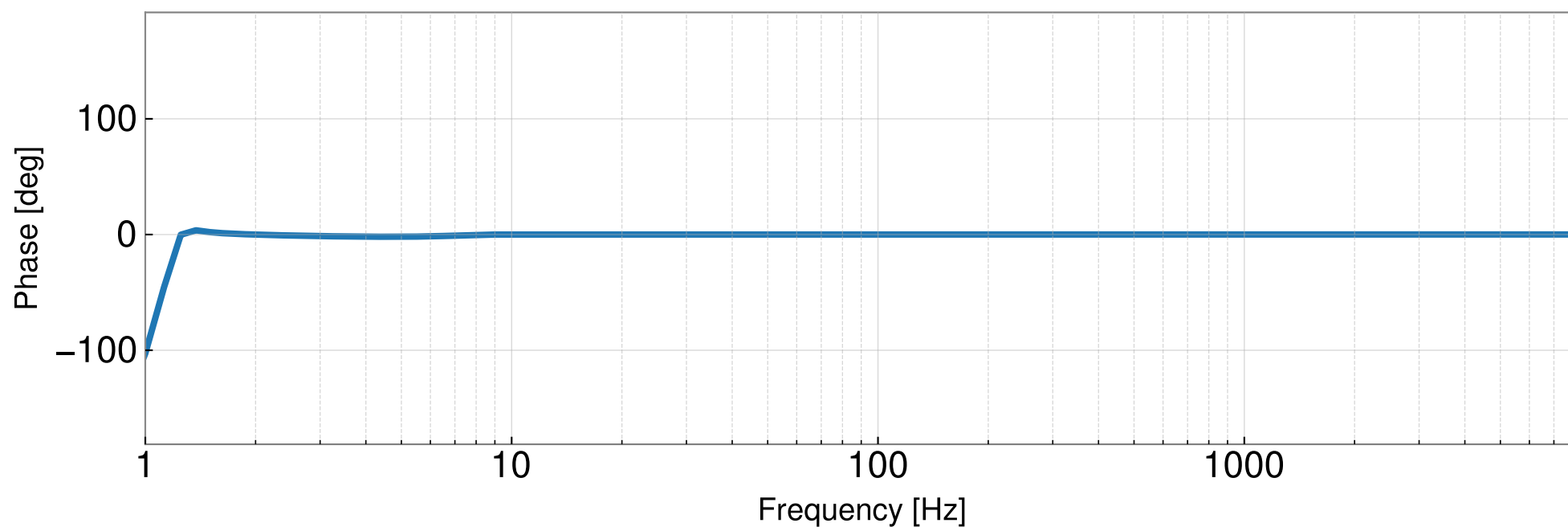
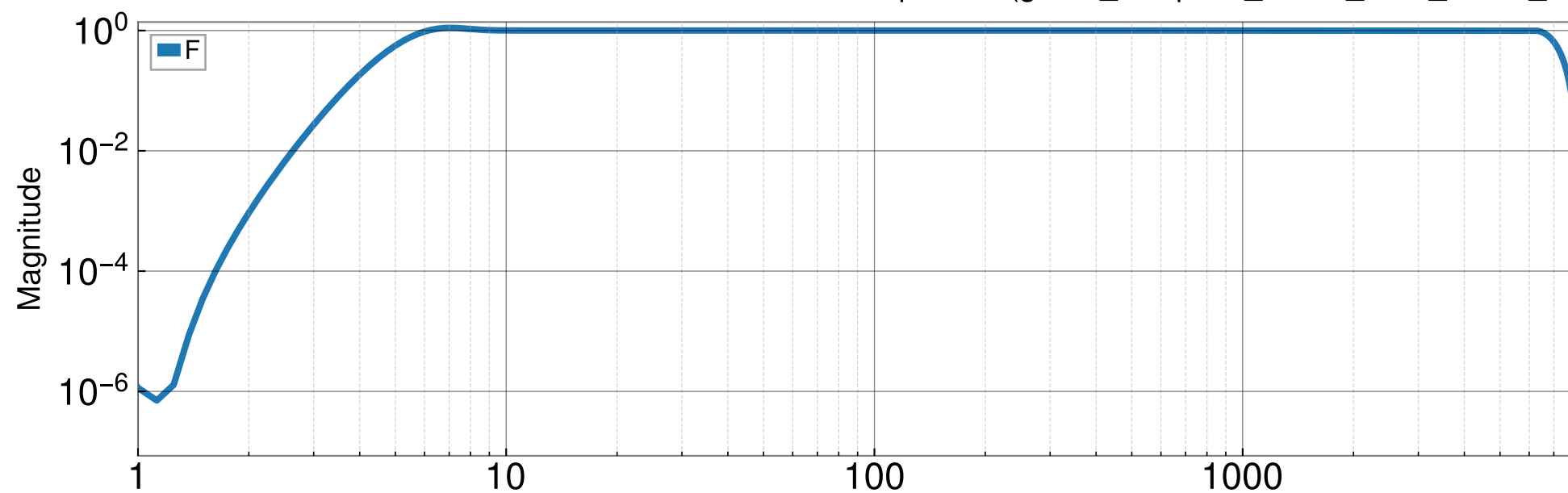
Res Corr No Pole

comparison (gstlal_compute_strain_C00_filters_H1.npz)



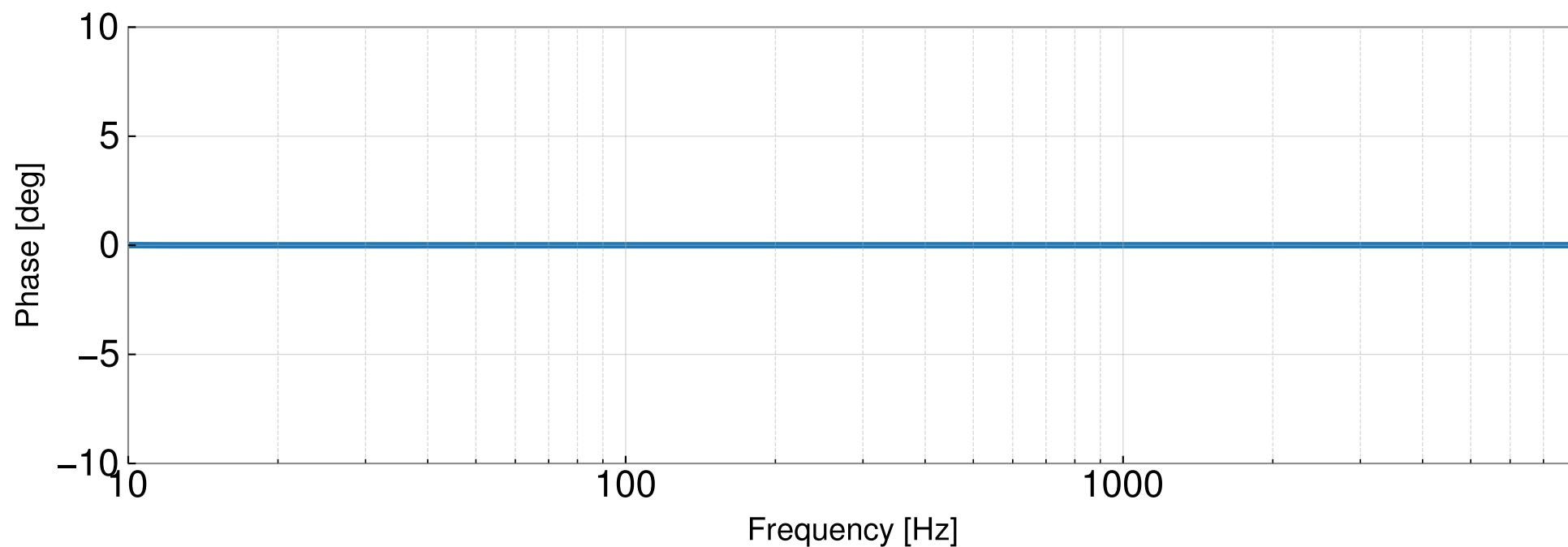
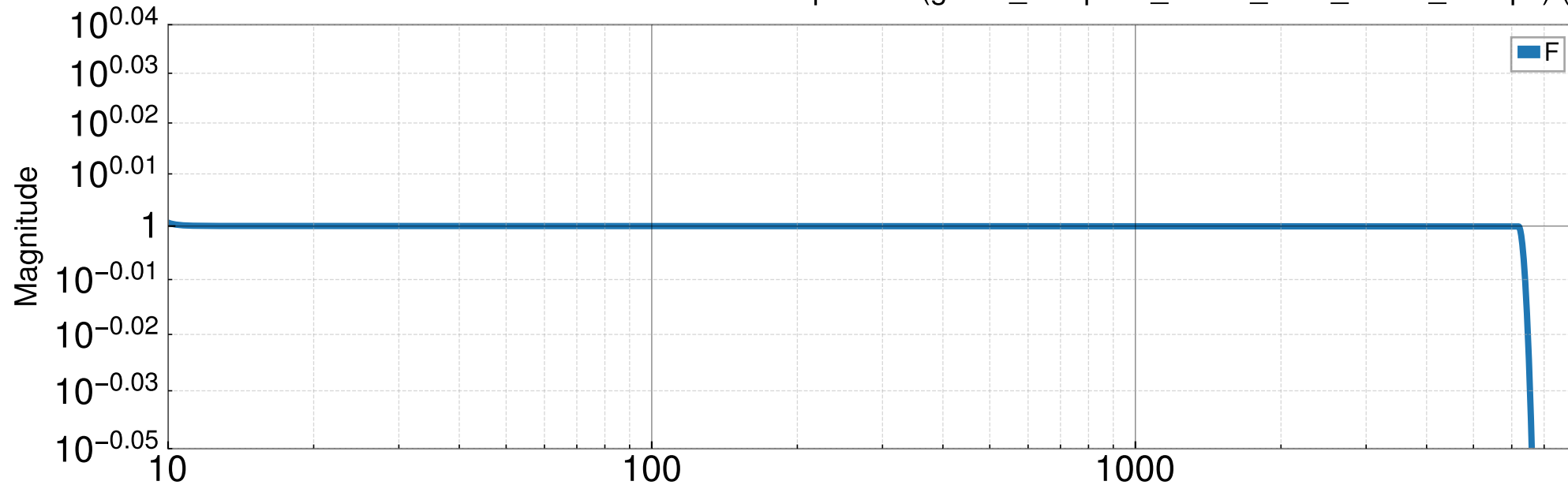
Ratio of Res Corr No Pole

comparison (gstlal_compute_strain_C00_filters_H1.npz)

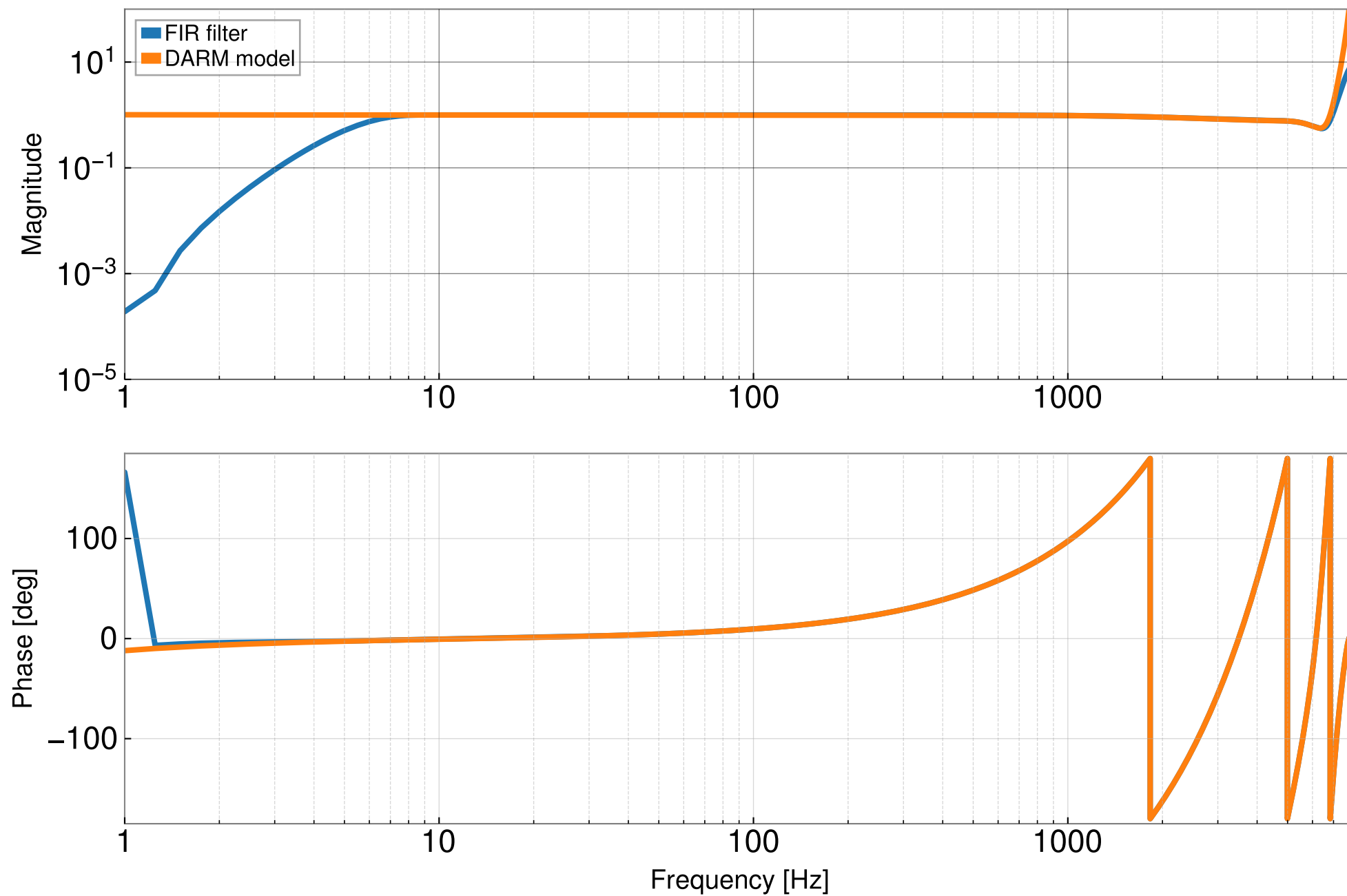


Ratio of Res Corr No Pole

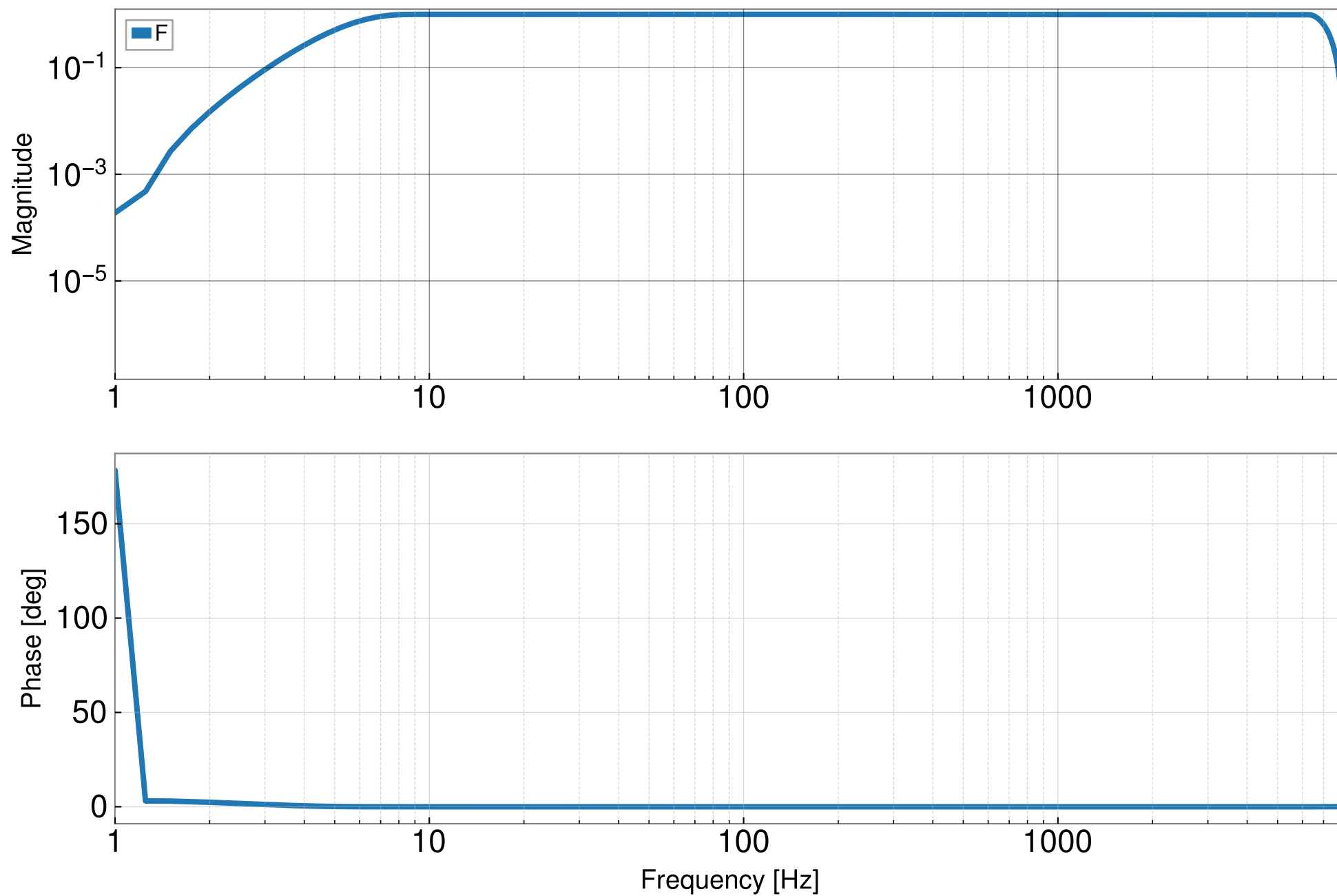
comparison (gstlal_compute_strain_C00_filters_H1.npz) (above 10 Hz)

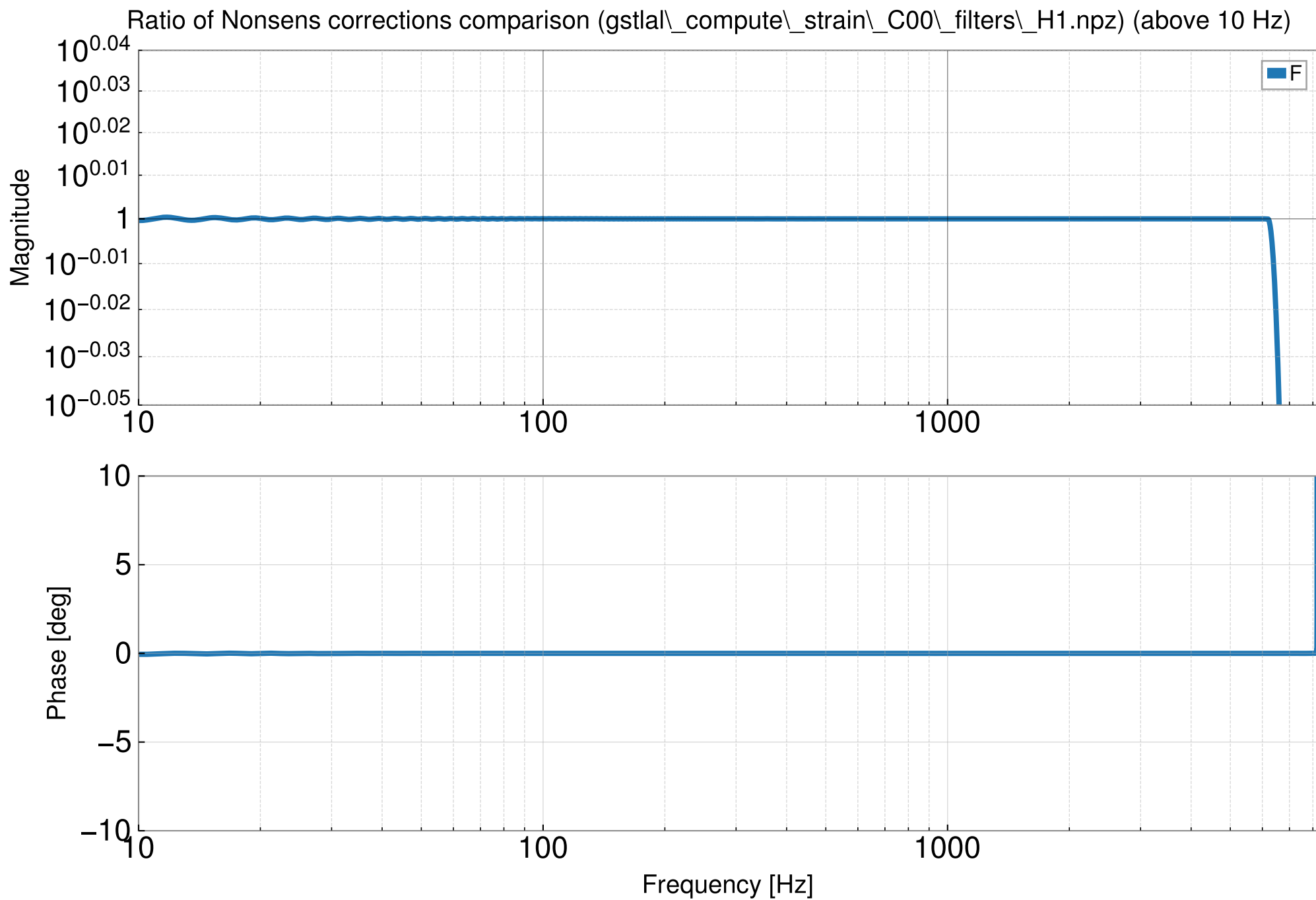


Nonsens corrections comparison (gstlal_compute_strain_C00_filters_H1.npz)

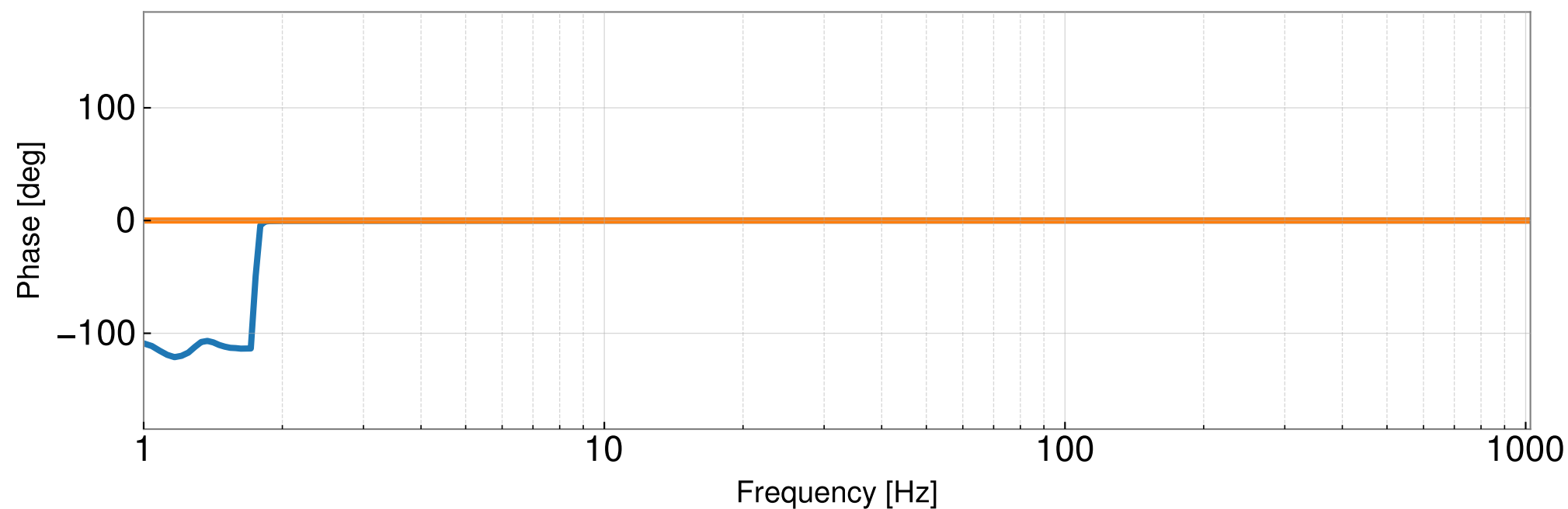
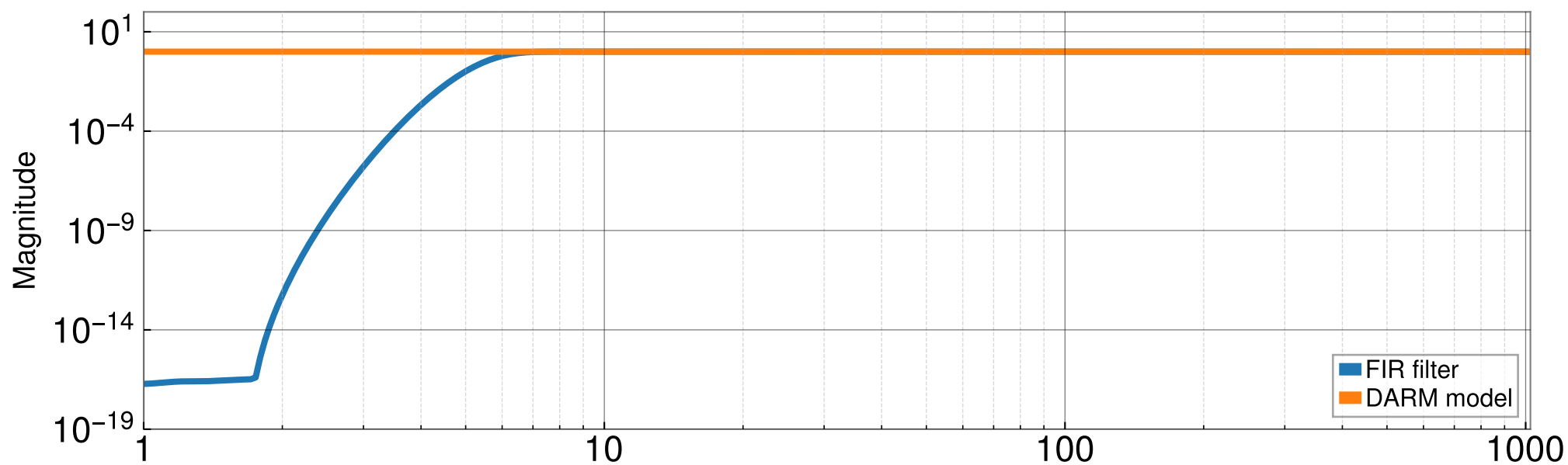


Ratio of Nonsens corrections comparison (gstlal_compute_strain_C00_filters_H1.npz)

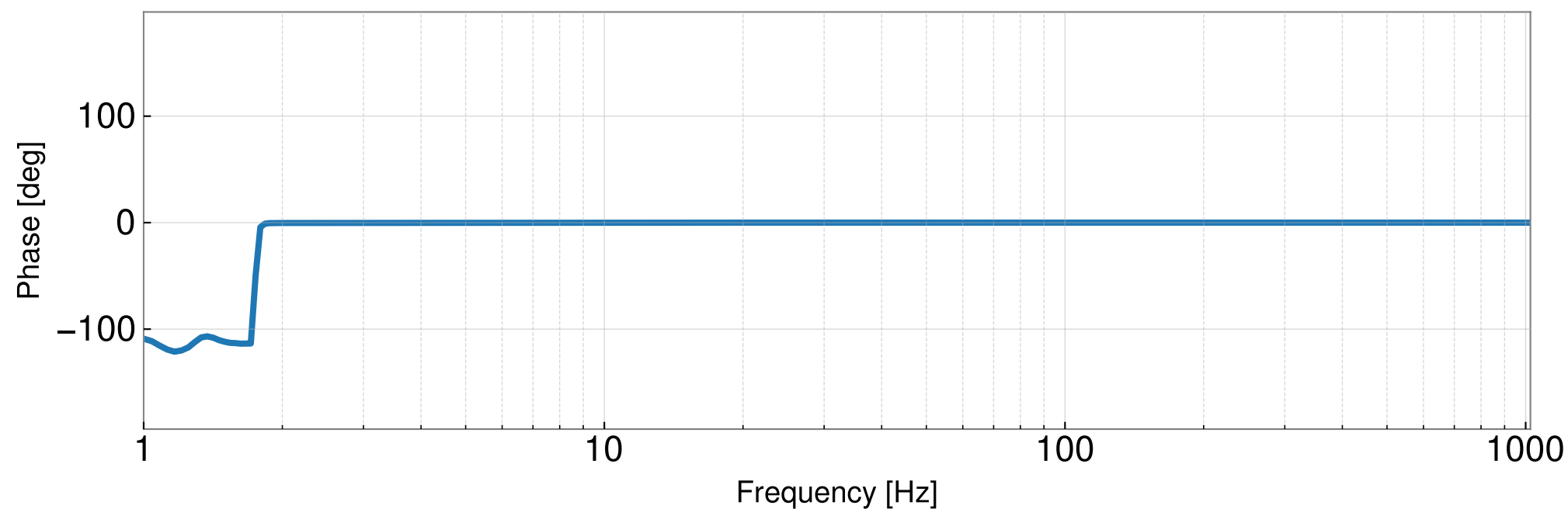
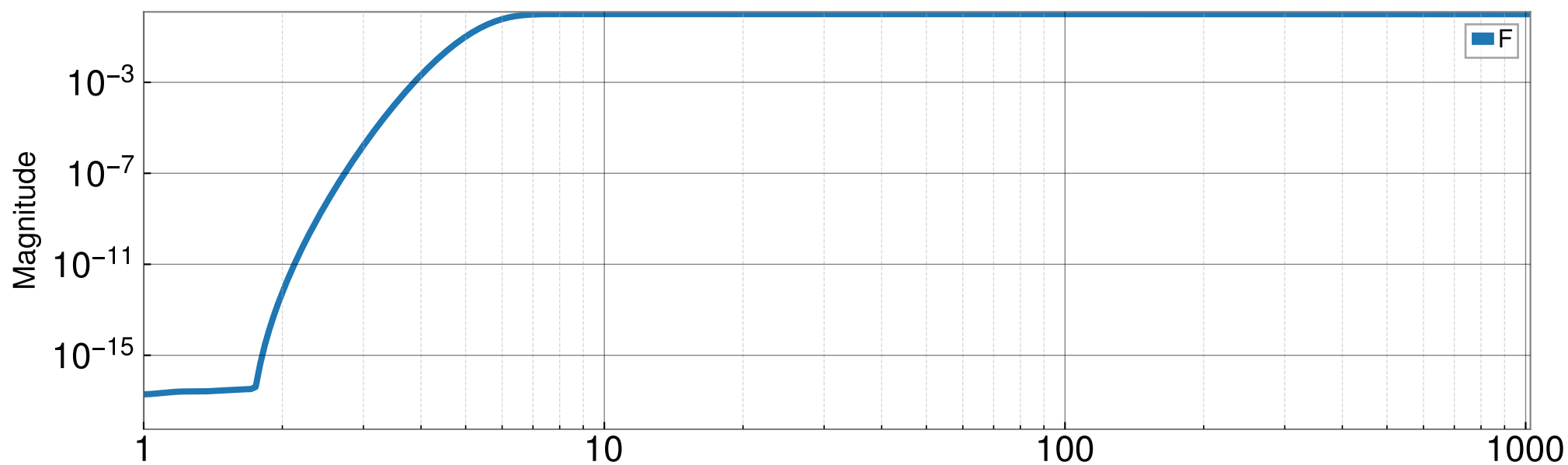


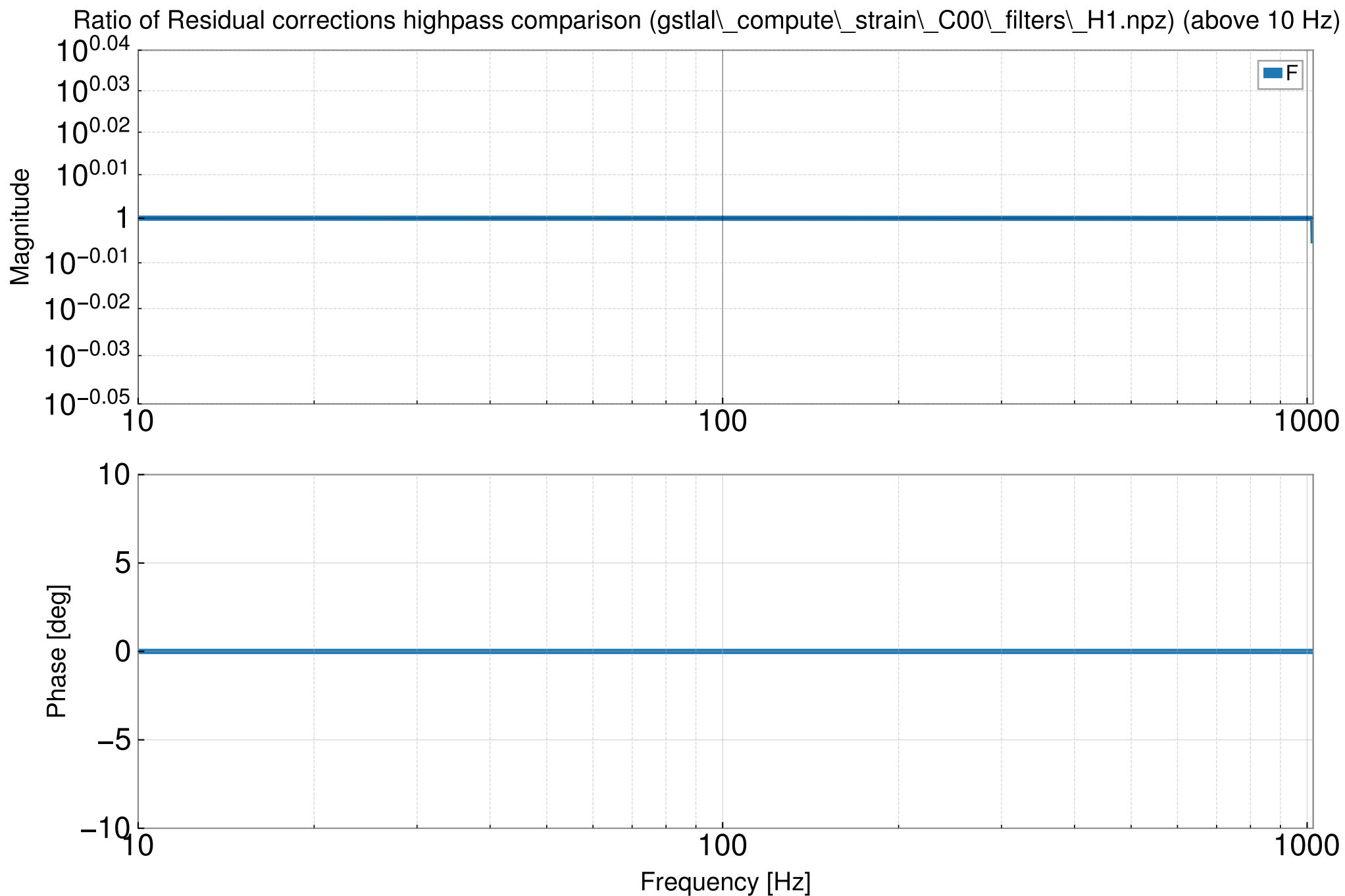


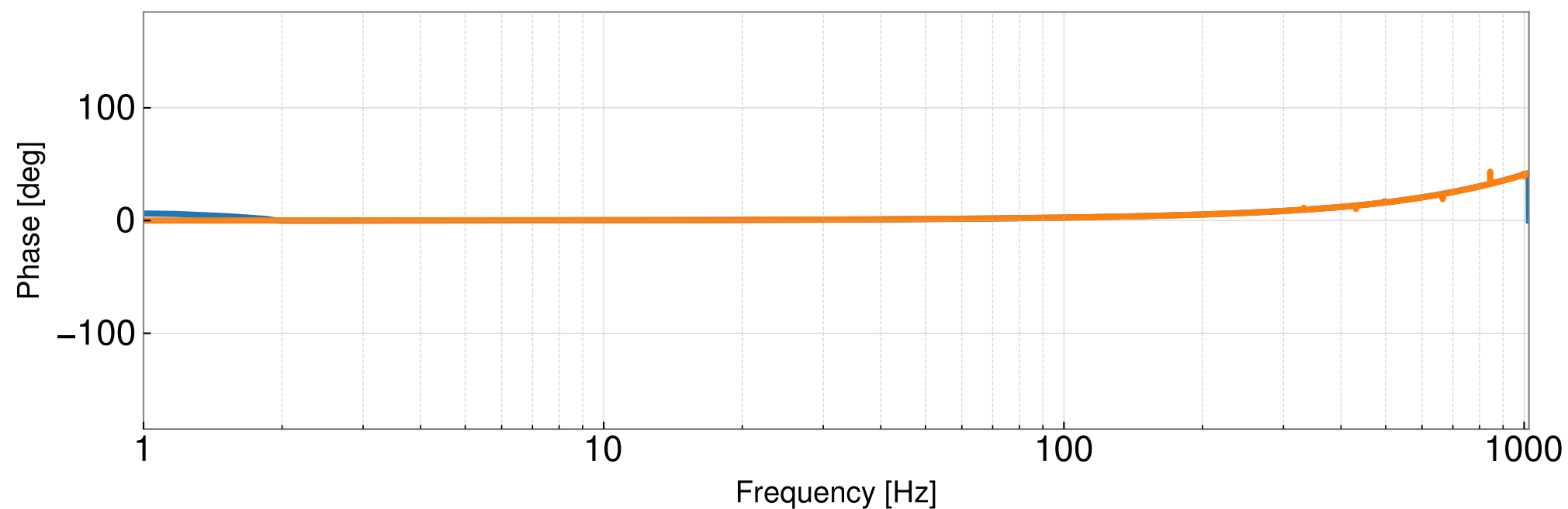
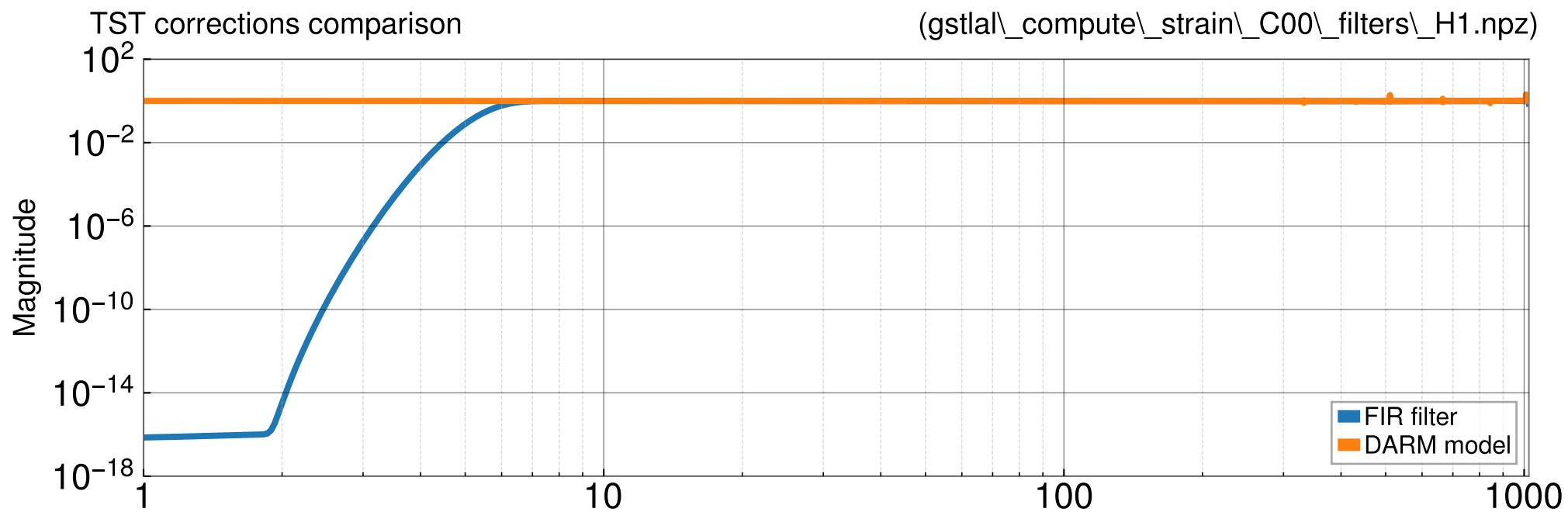
Residual corrections highpass comparison (gstlal_compute_strain_C00_filters_H1.npz)



Ratio of Residual corrections highpass comparison (gstlal_compute_strain_C00_filters_H1.npz)

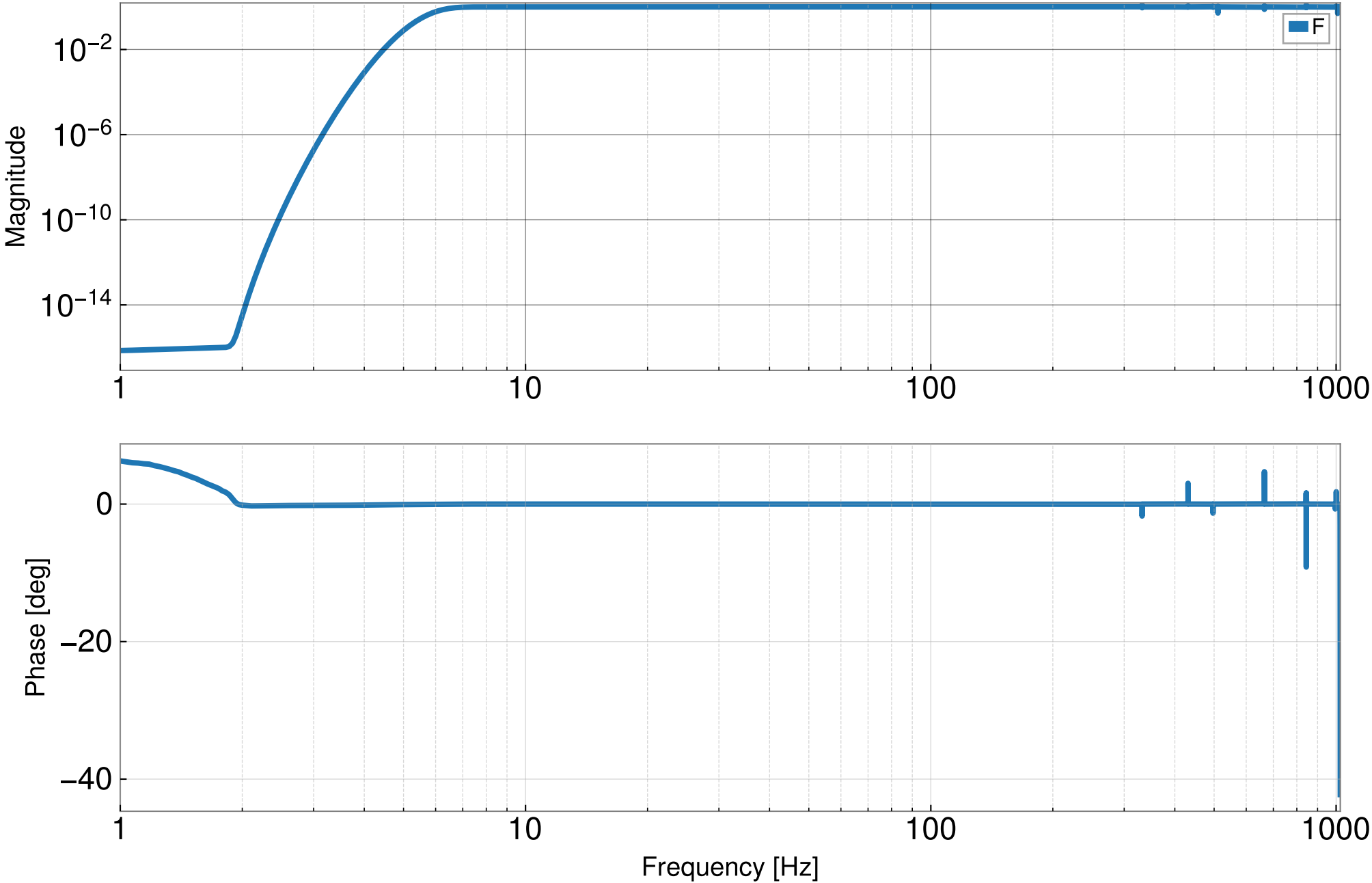






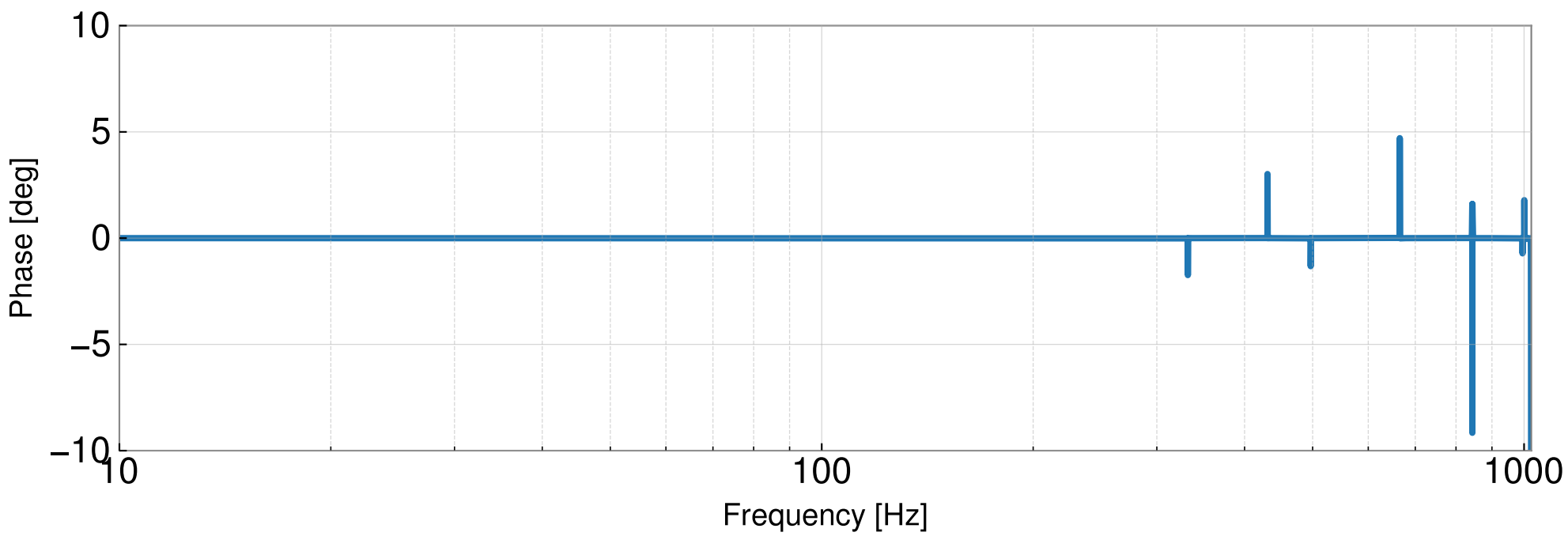
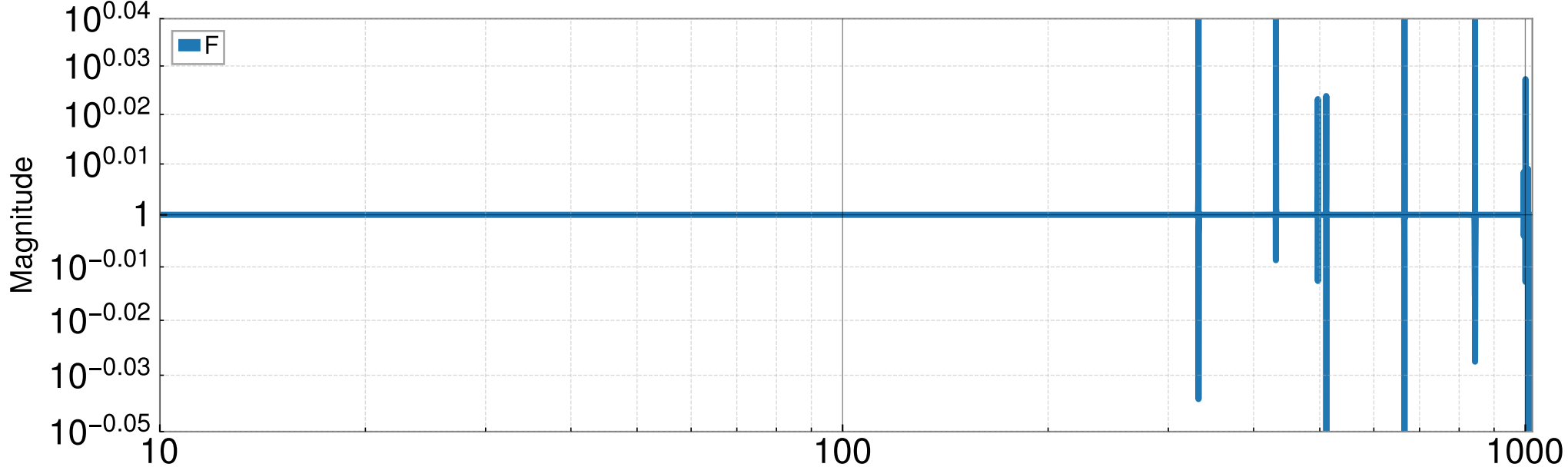
Ratio of TST corrections comparison

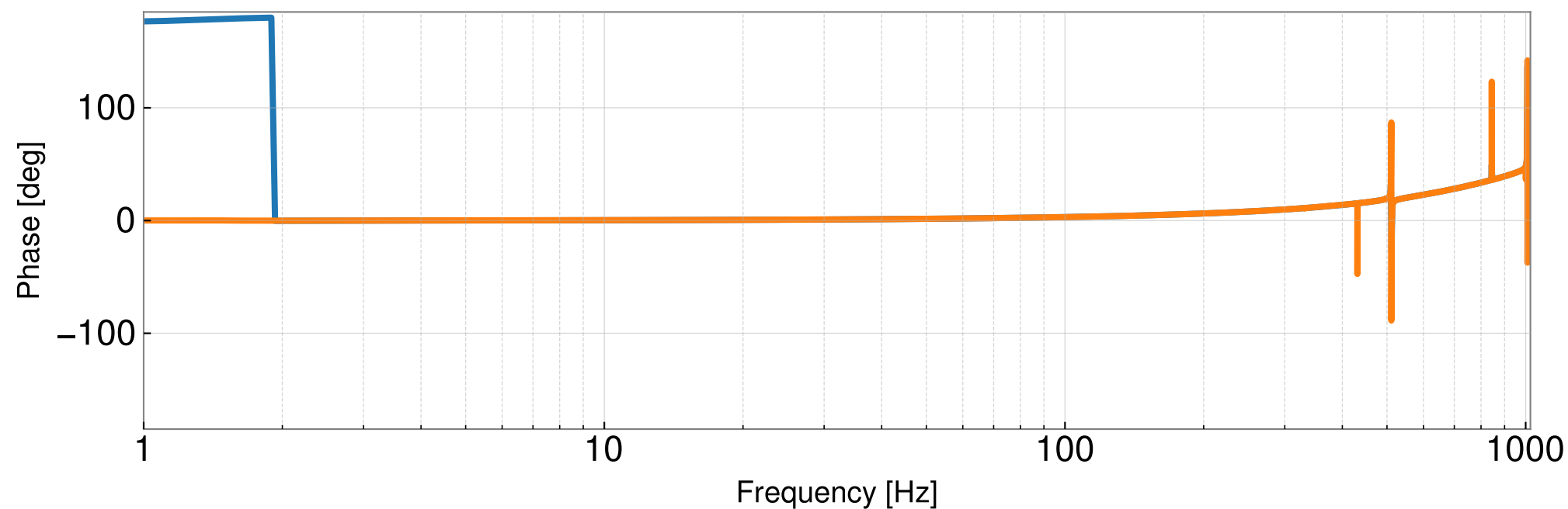
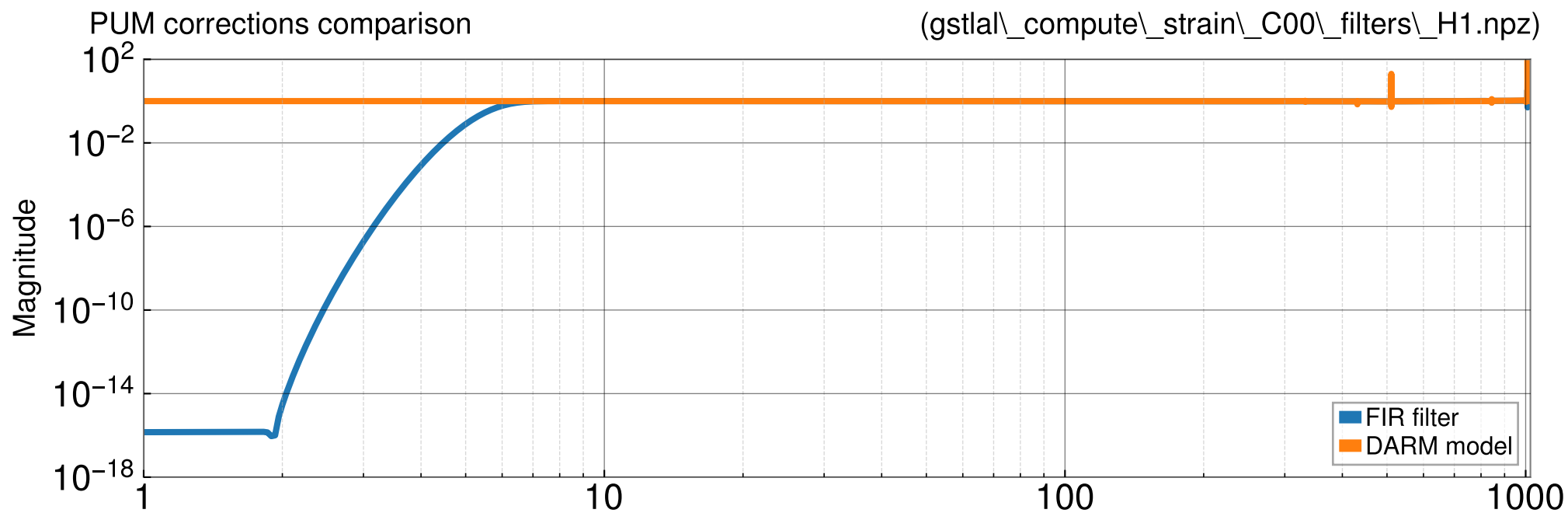
(gstlal_compute_strain_C00_filters_H1.npz)



Ratio of TST corrections comparison

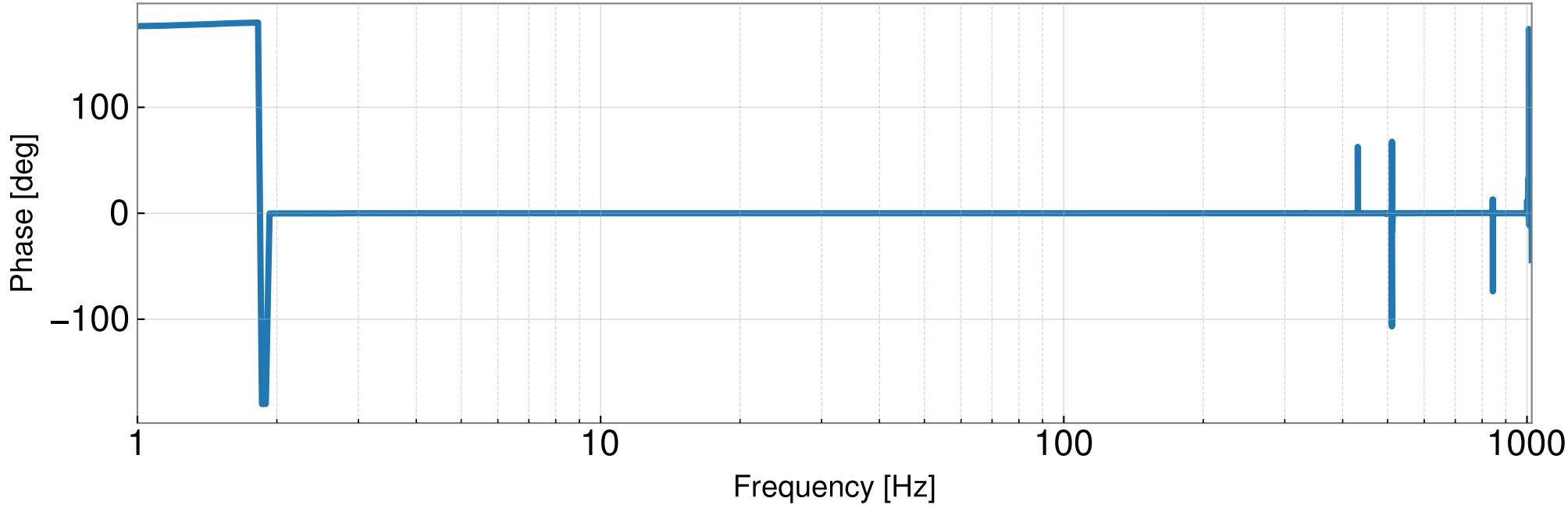
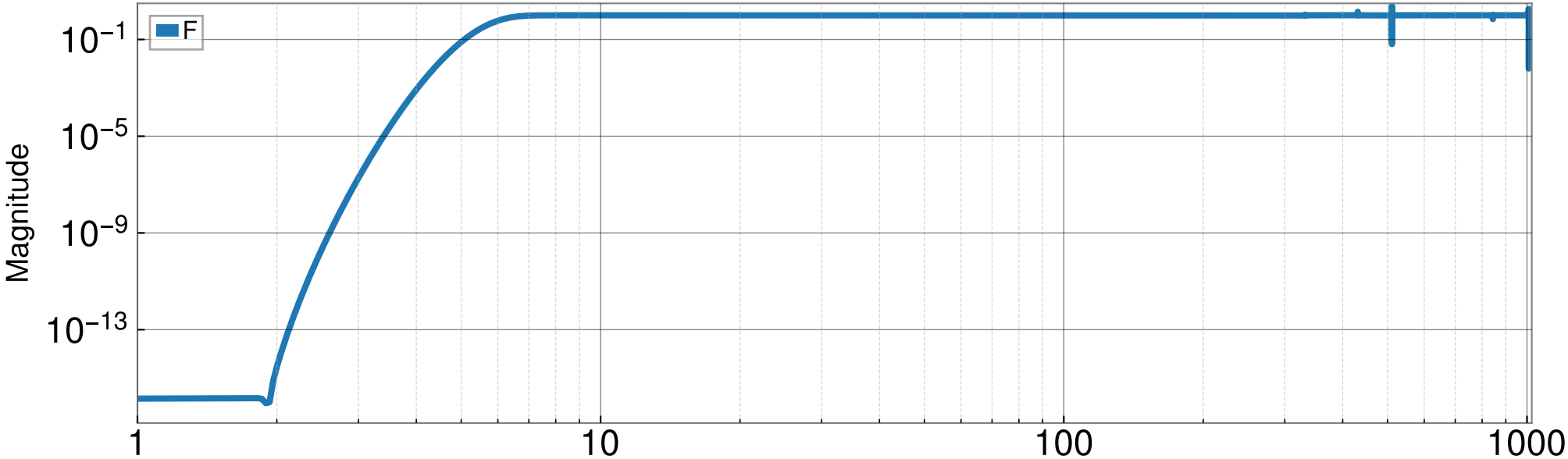
(gstlal_compute_strain_C00_filters_H1.npz) (above 10 Hz)



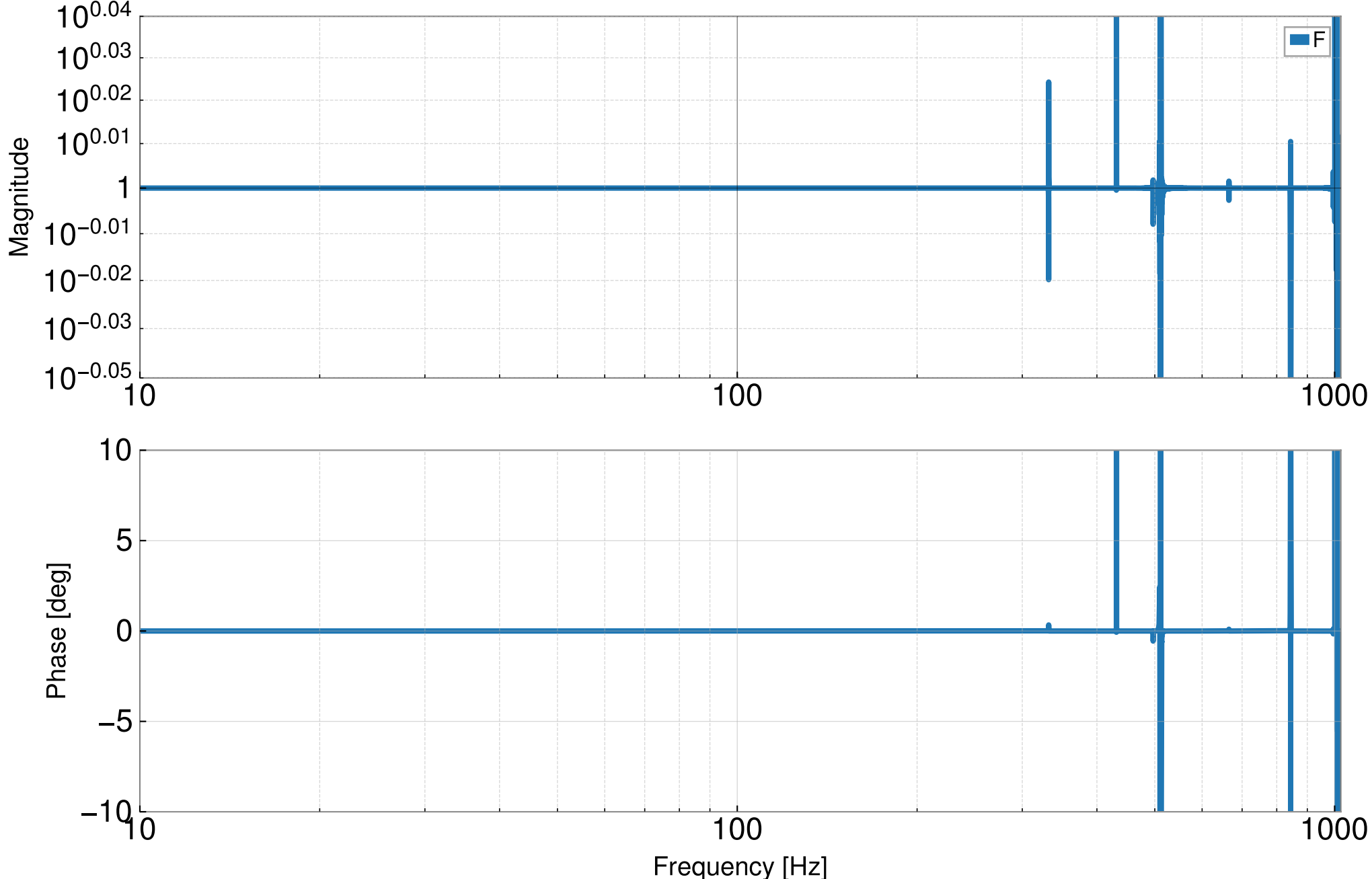


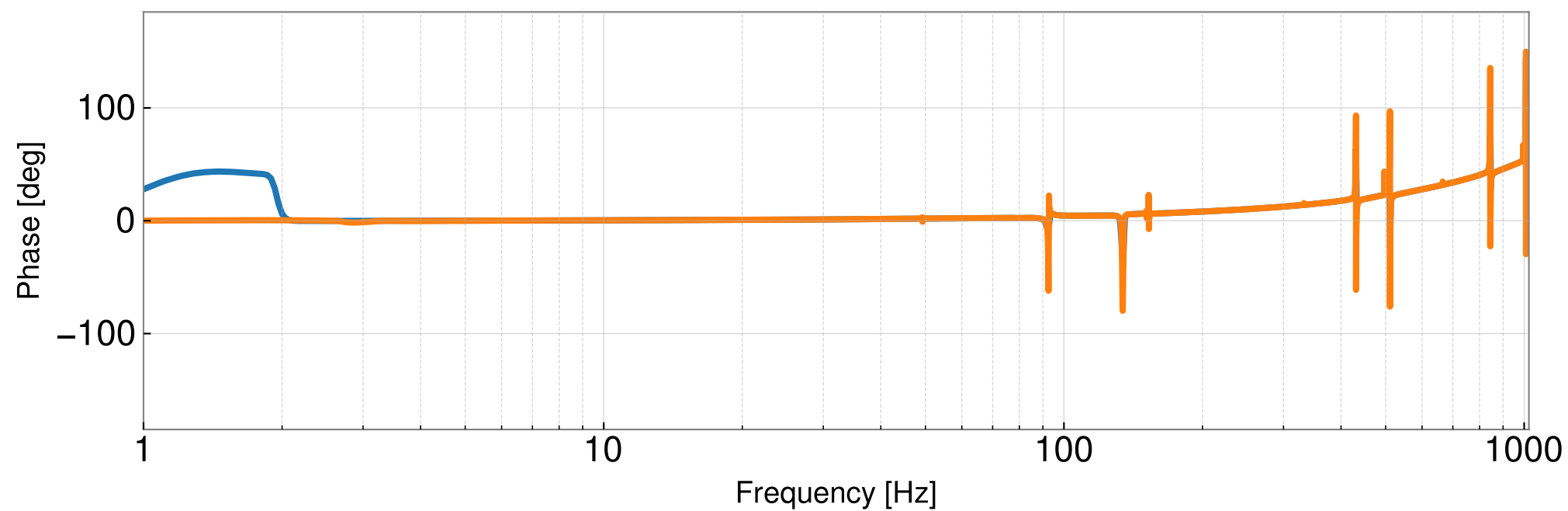
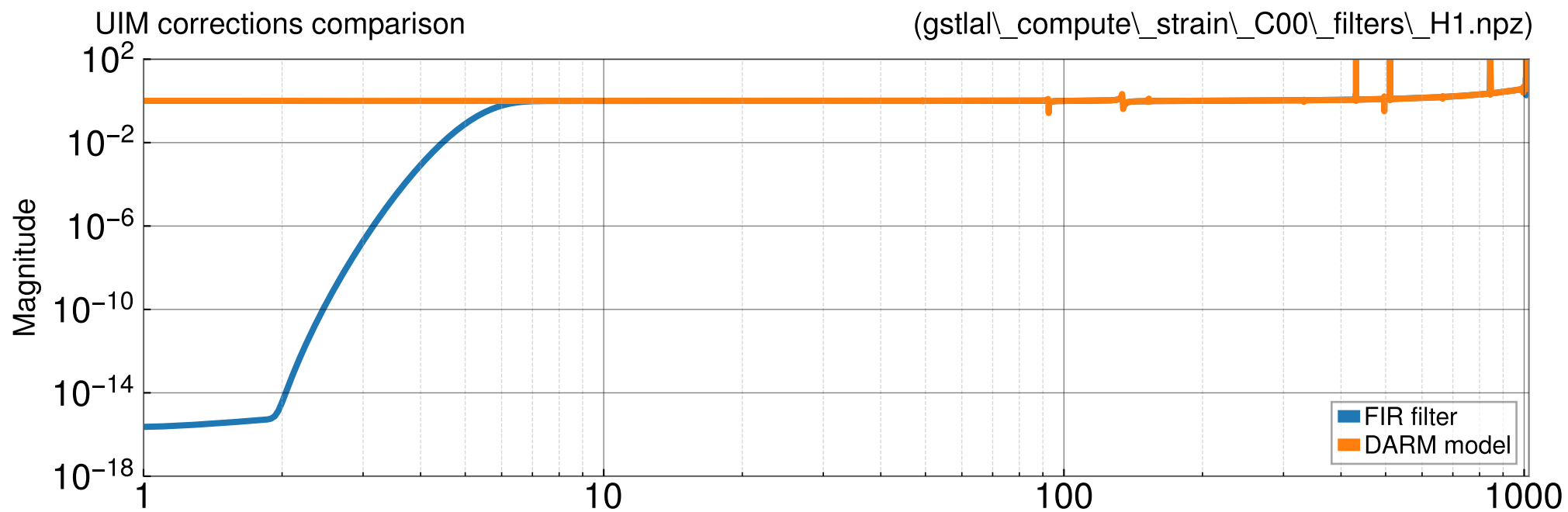
Ratio of PUM corrections comparison

(gstlal_compute_strain_C00_filters_H1.npz)



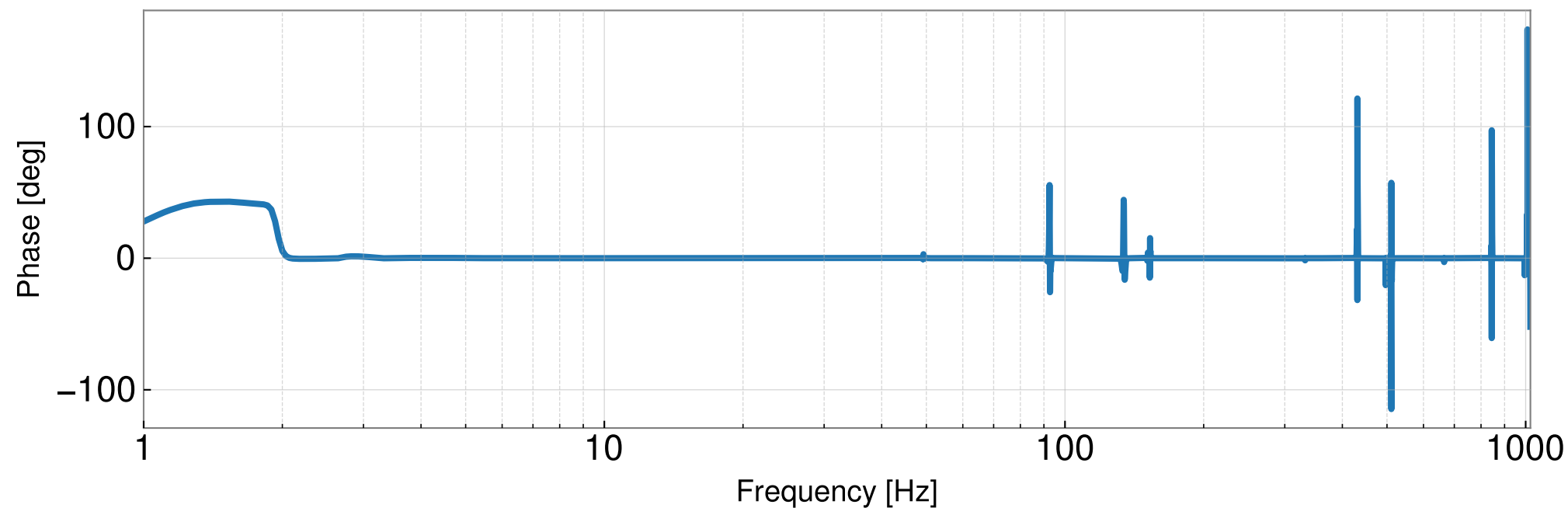
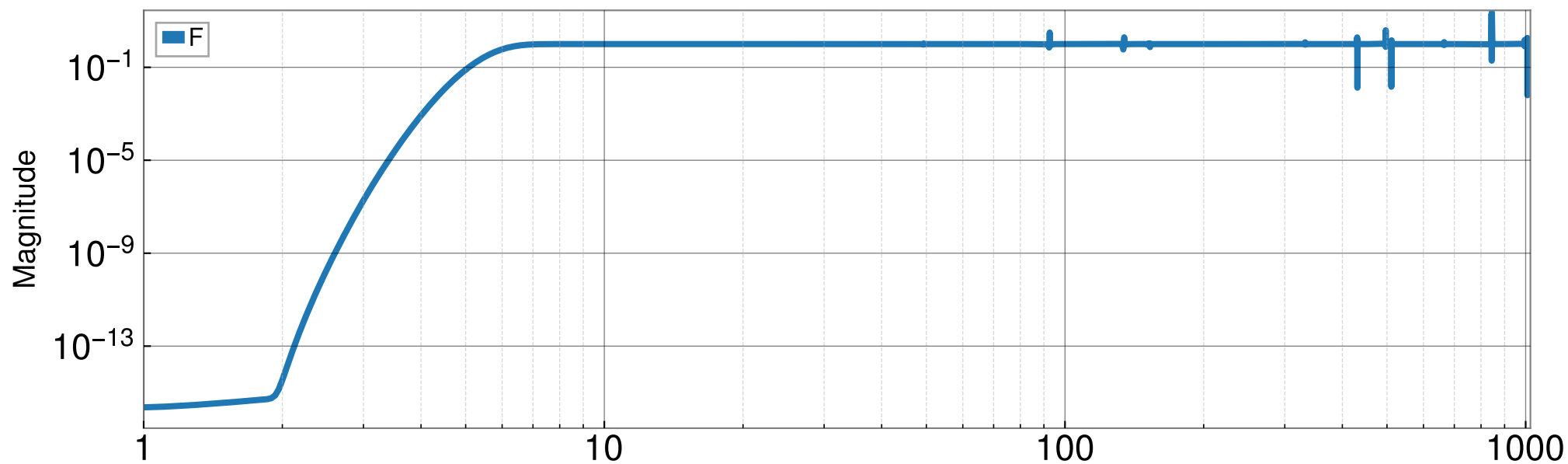
Ratio of PUM corrections comparison (gstla_compute_strain_C00_filters_H1.npz) (above 10 Hz)





Ratio of UIM corrections comparison

(gstlal_compute_strain_C00_filters_H1.npz)



Ratio of UIM corrections comparison

(gstlal_compute_strain_C00_filters_H1.npz) (above 10 Hz)

