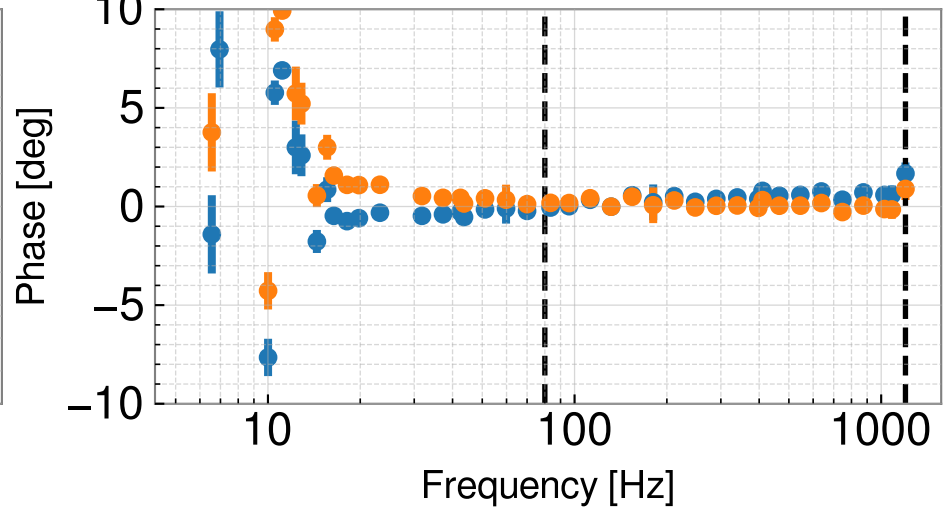
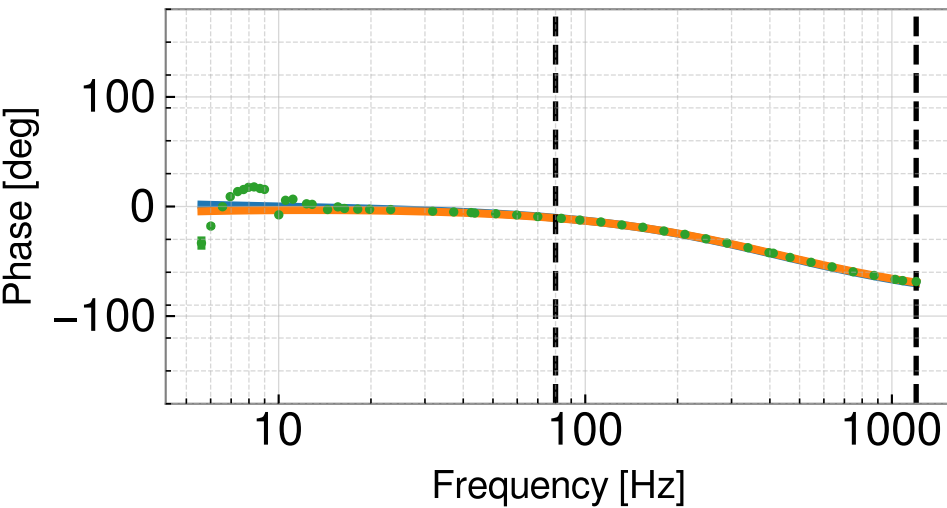
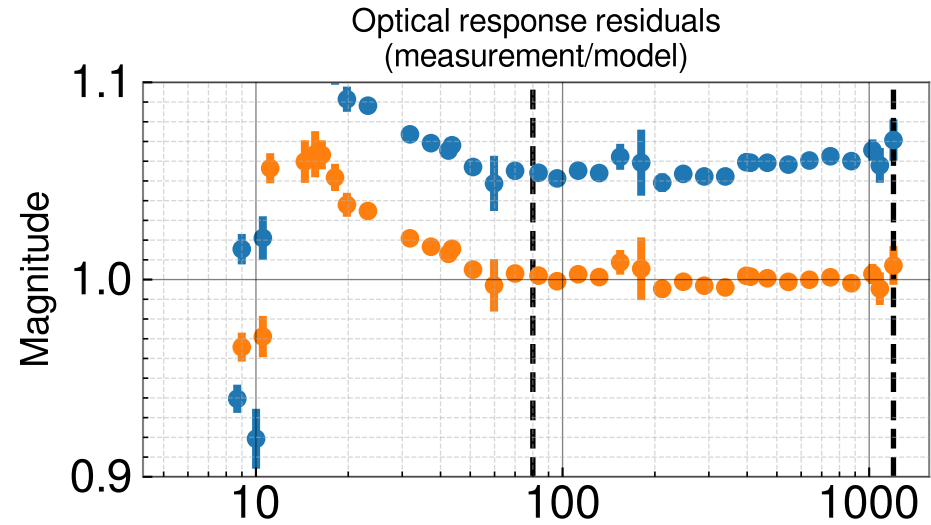
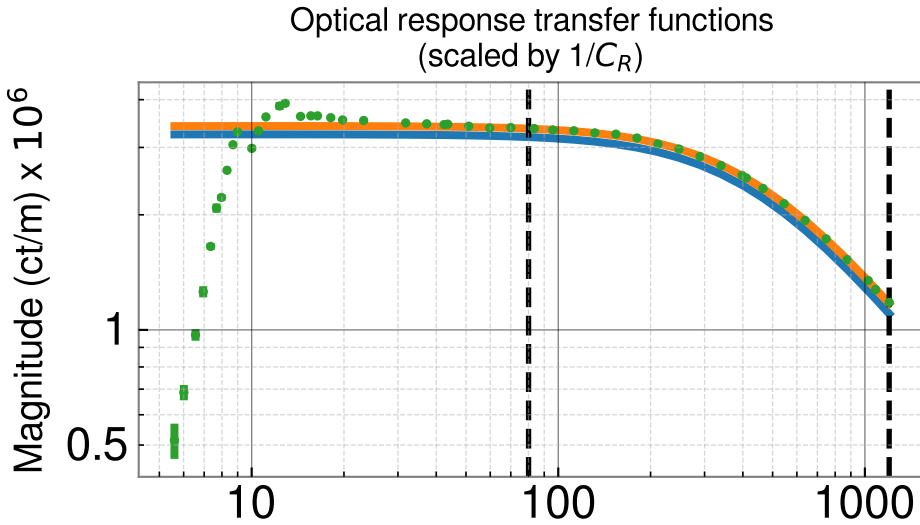
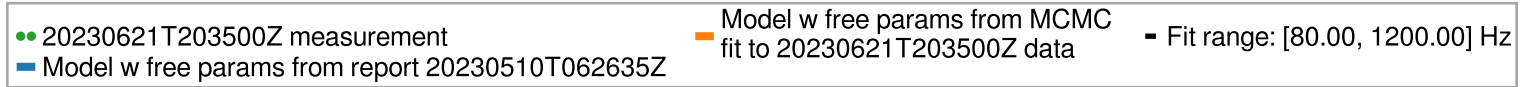


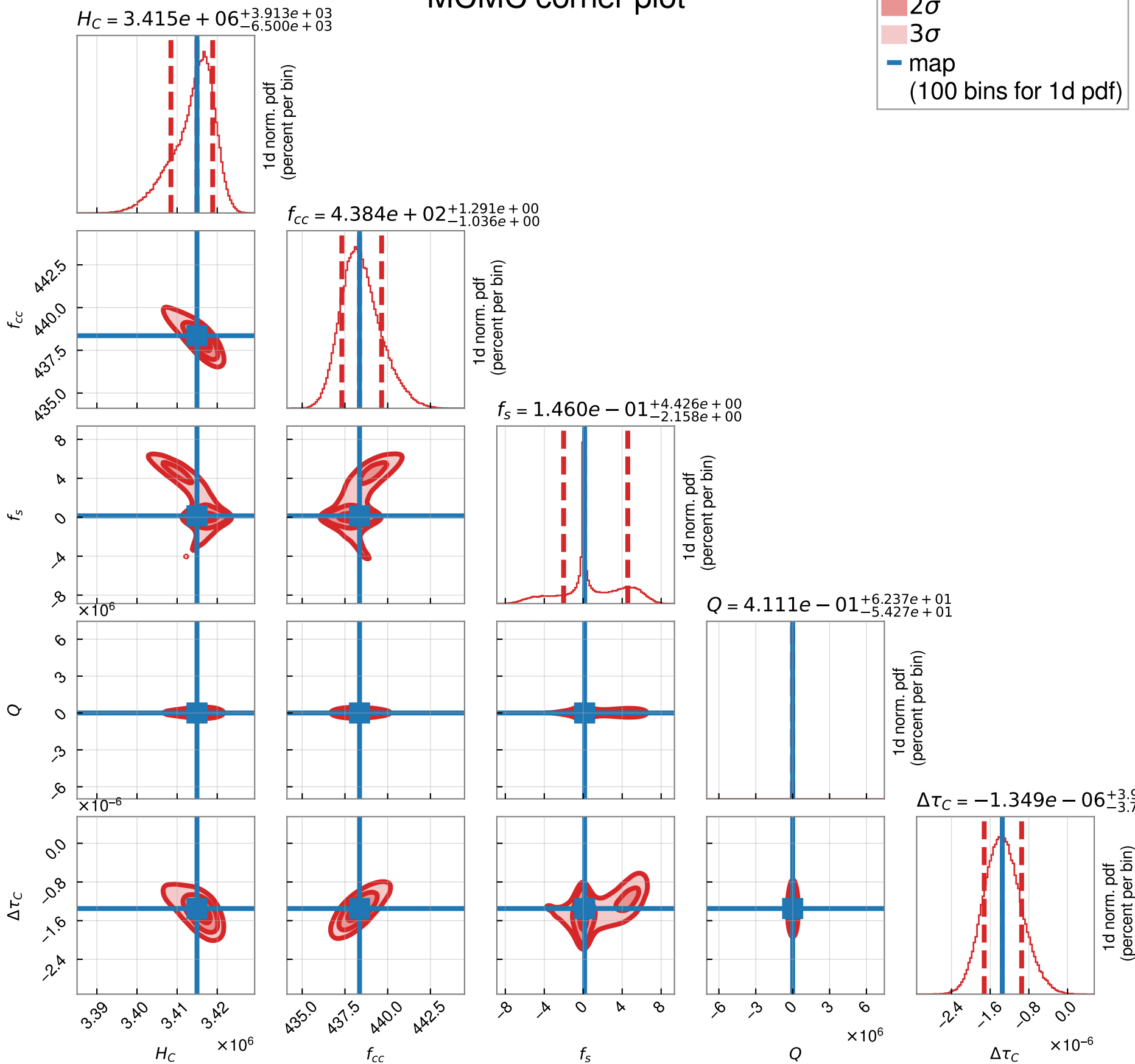
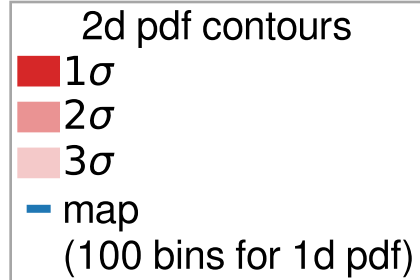
H1 sensing model MCMC summary

All fixed parameters drawn from 20230621T201733Z/pydarm_H1.ini



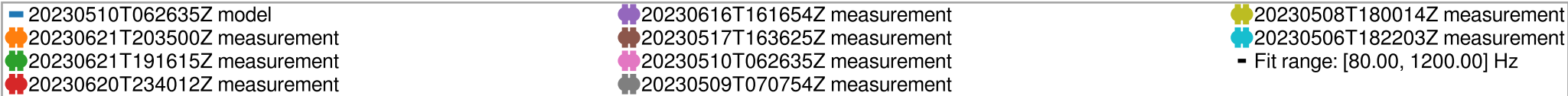
Parameter	(value +/-) value	+	-
Optical gain, H_c (ct/m)	3.415e+06	3913 (0.11%)	6500 (0.19%)
Cavity_pole, f_cc (Hz)	438.4	1.291 (0.29%)	1.036 (0.24%)
Detuned SRC spring frequency, f_s (Hz)	0.146	4.426 (3031.99%)	2.158 (1478.30%)
Detuned SRC spring quality factor, Q_s	0.4111	62.37 (15173.96%)	54.27 (13202.11%)
Residual time delay, tau_c (s)	-1.349e-06	3.998e-07 (-29.63%)	3.743e-07 (-27.74%)

20230621T203500Z sensing function MCMC corner plot

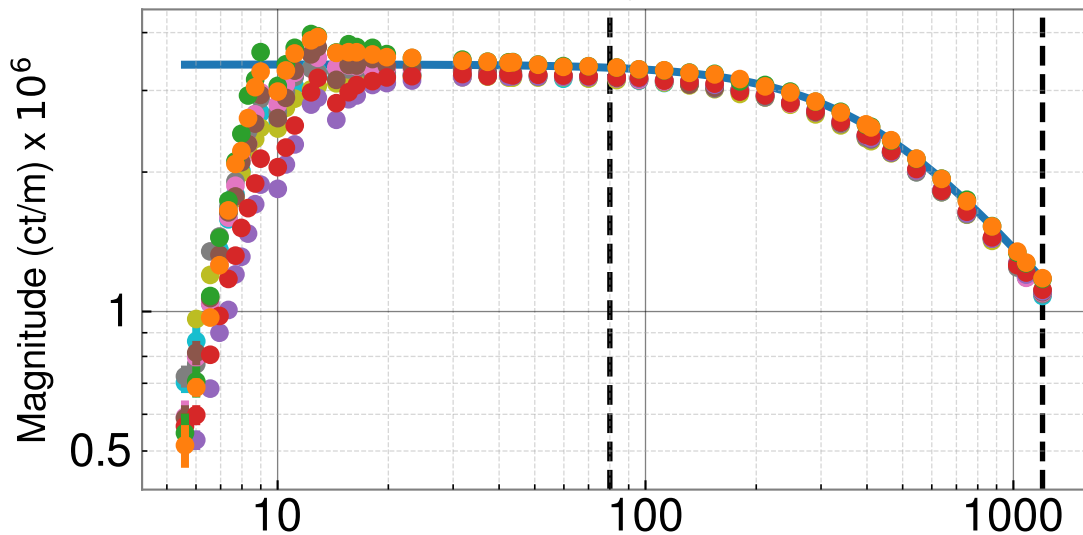


H1 sensing model history

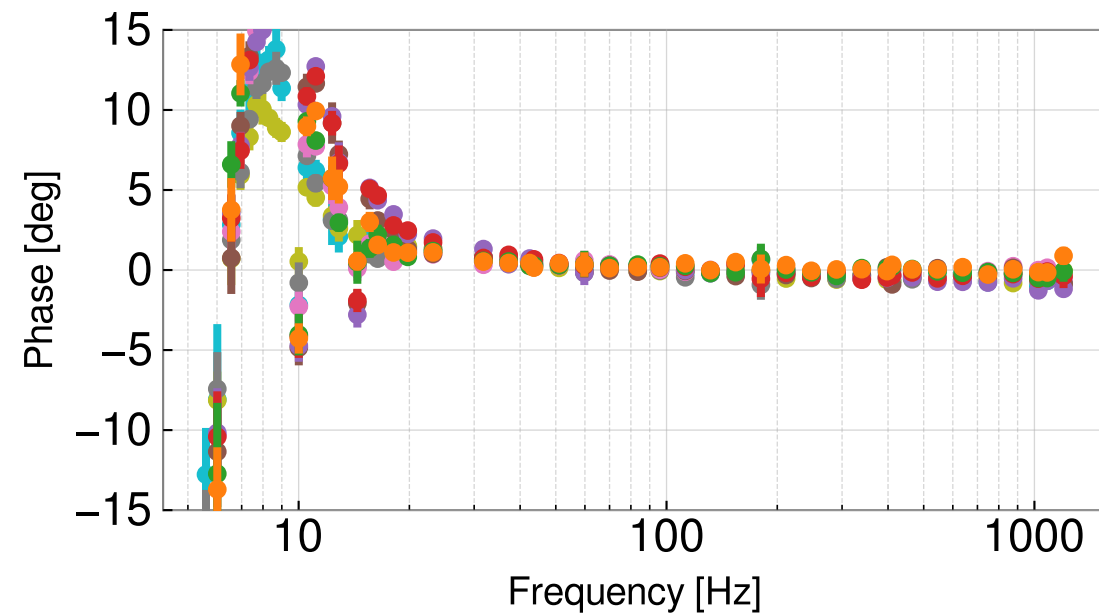
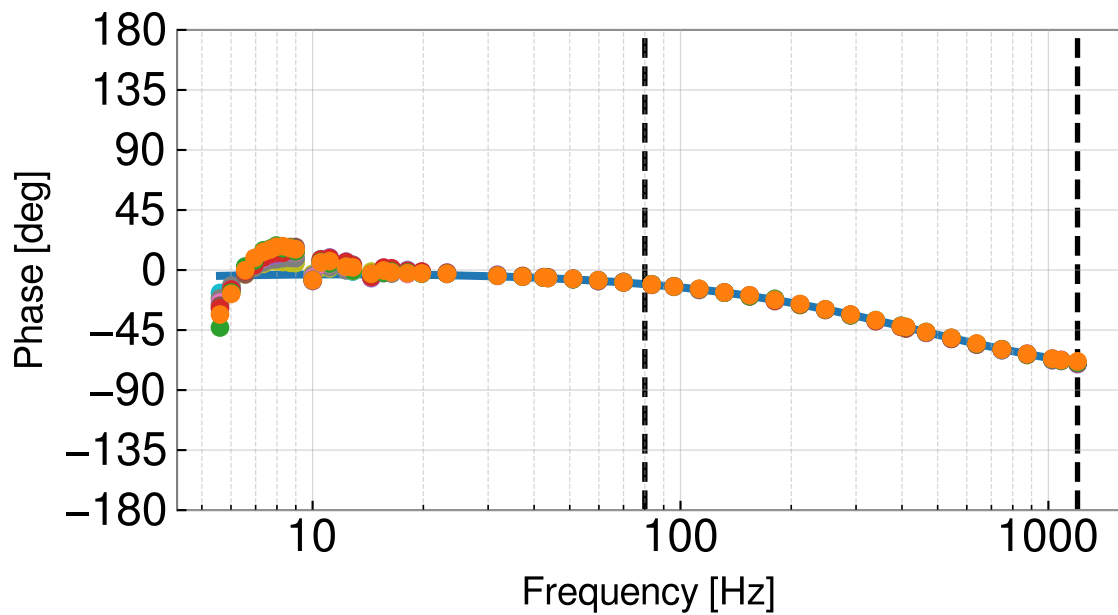
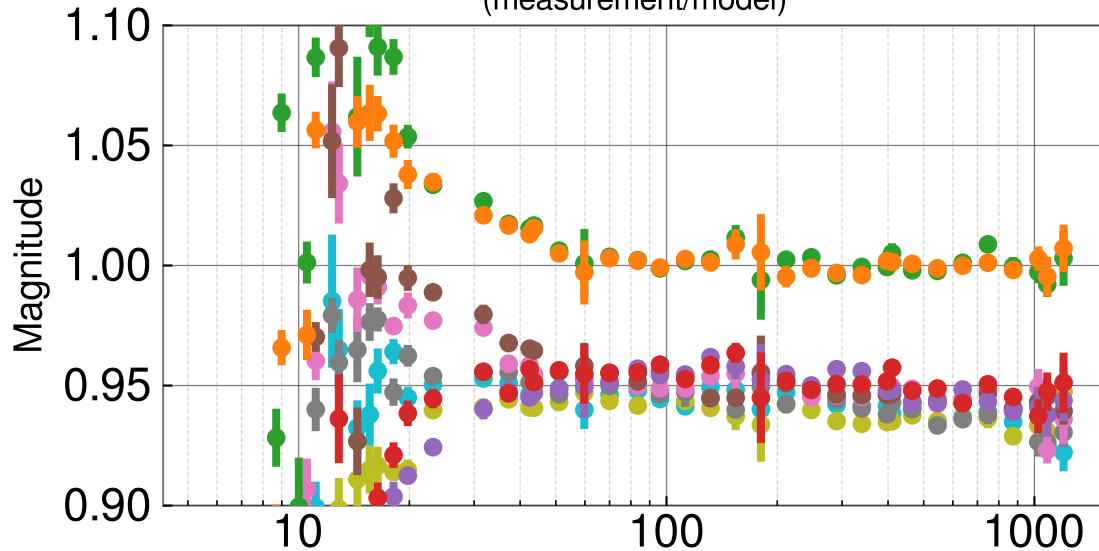
All fixed parameters drawn from 20230621T201733Z/pydarm_H1.ini



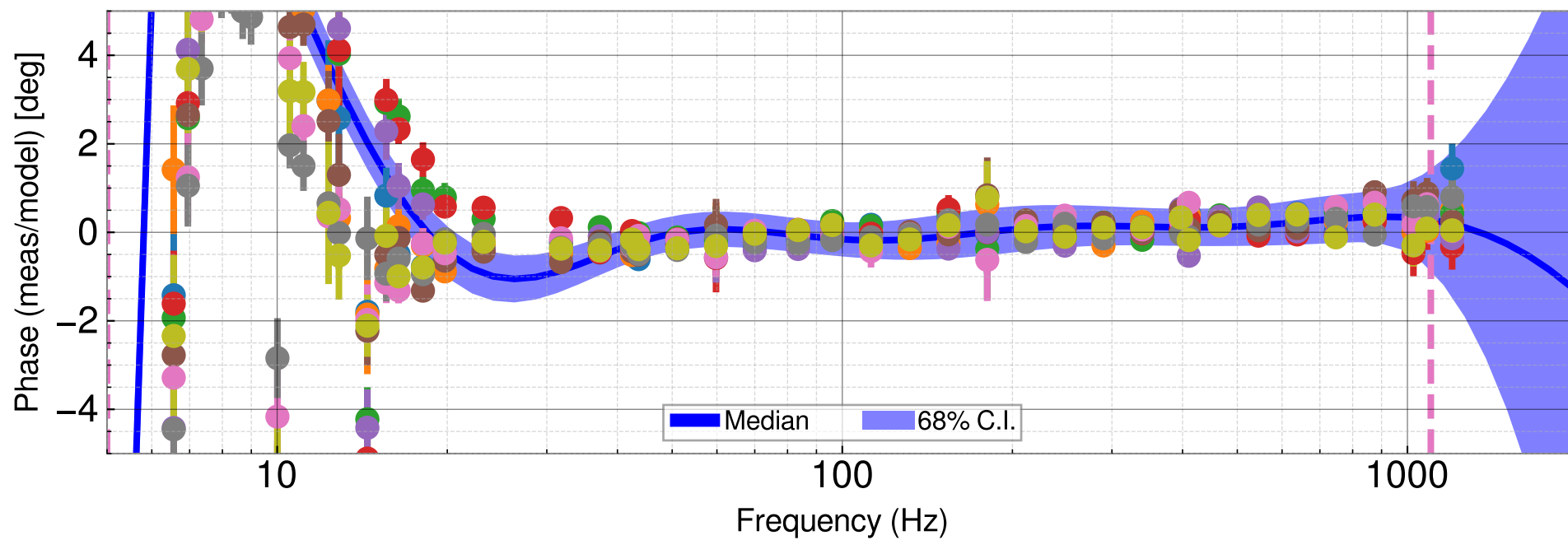
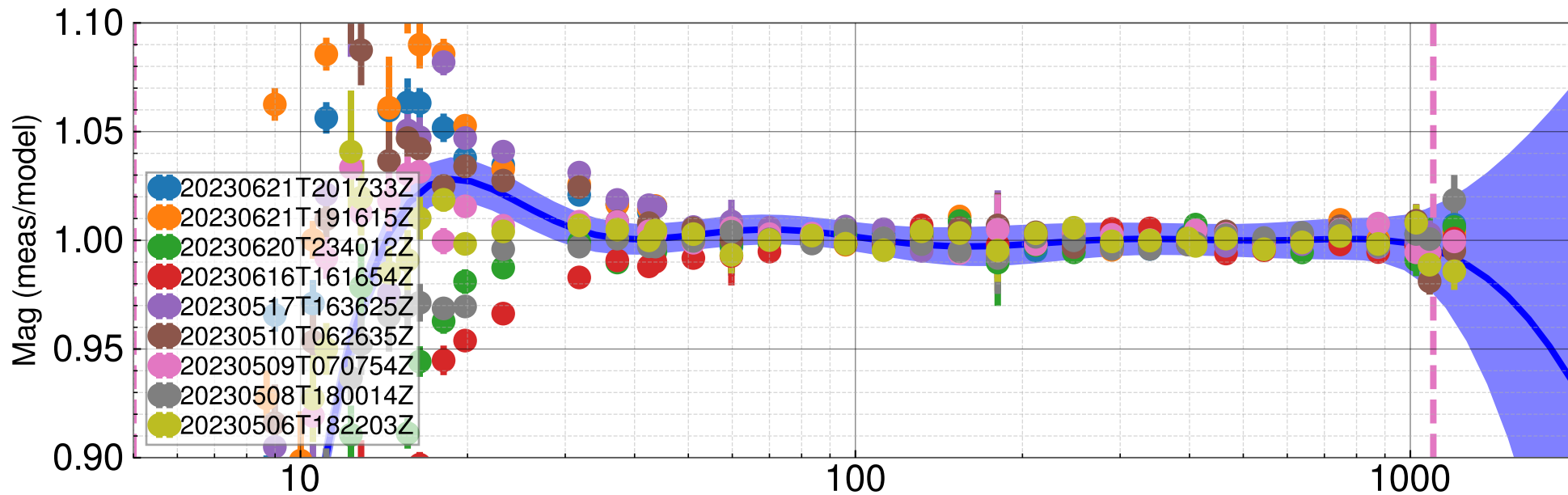
Optical response transfer functions
(scaled by $1/C_R$)



Optical response residuals
(measurement/model)

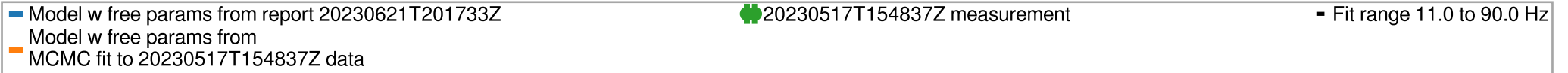


Sensing GPR

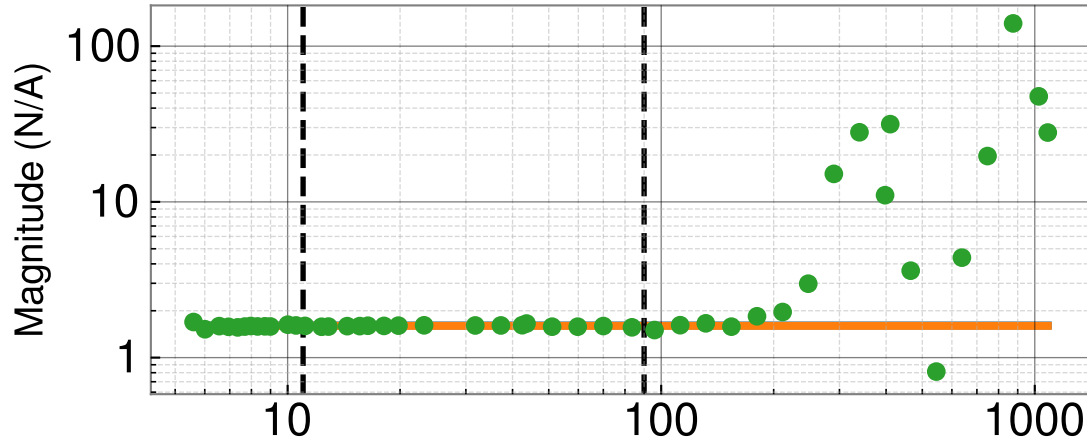


H1SUSEX L1 actuation model MCMC summary

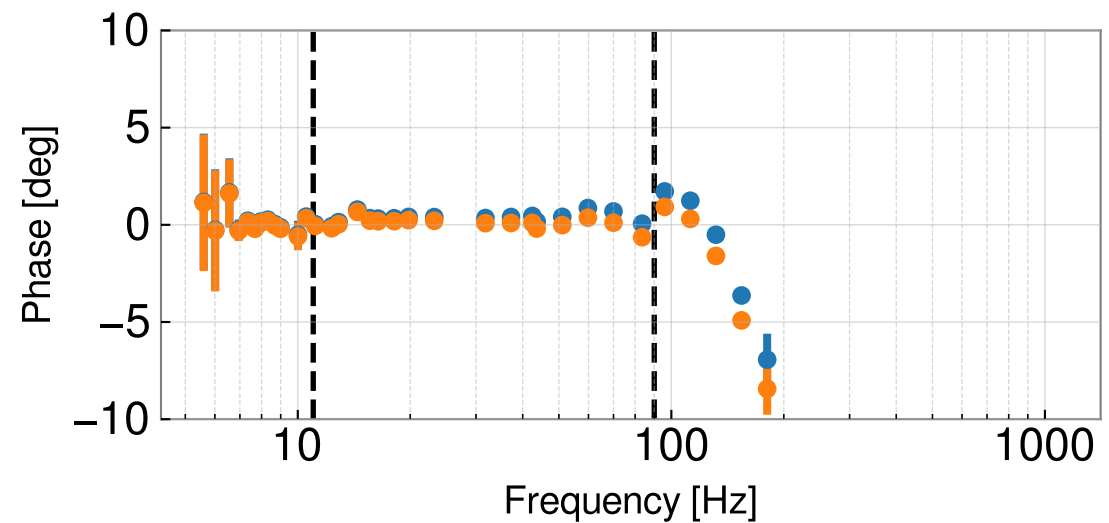
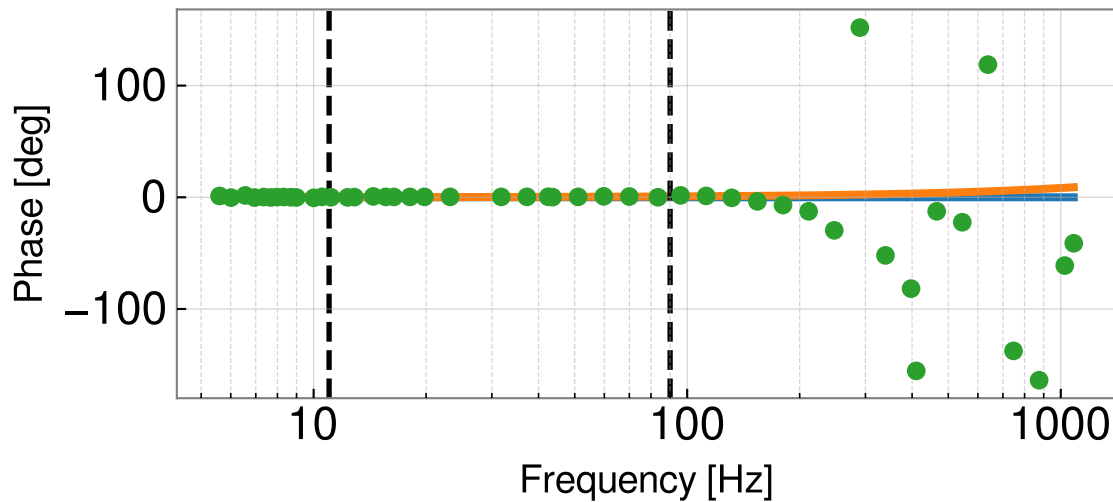
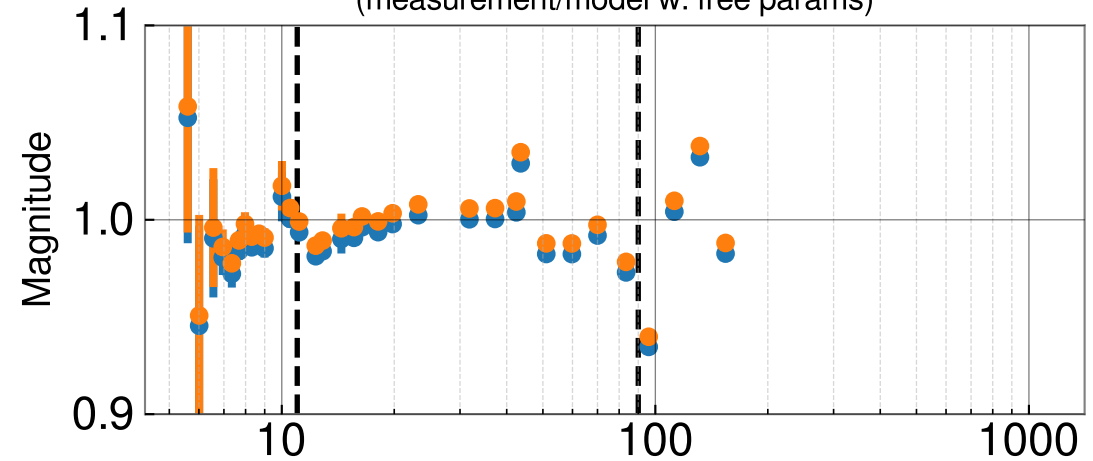
All fixed parameters drawn from 20230621T201733Z/pydarm_H1.ini



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

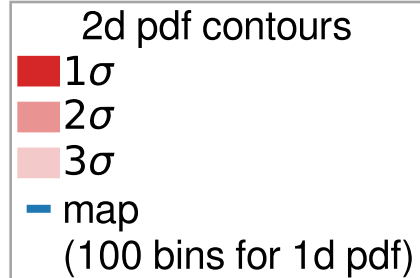


Actuation strength residuals
(measurement/model w. free params)

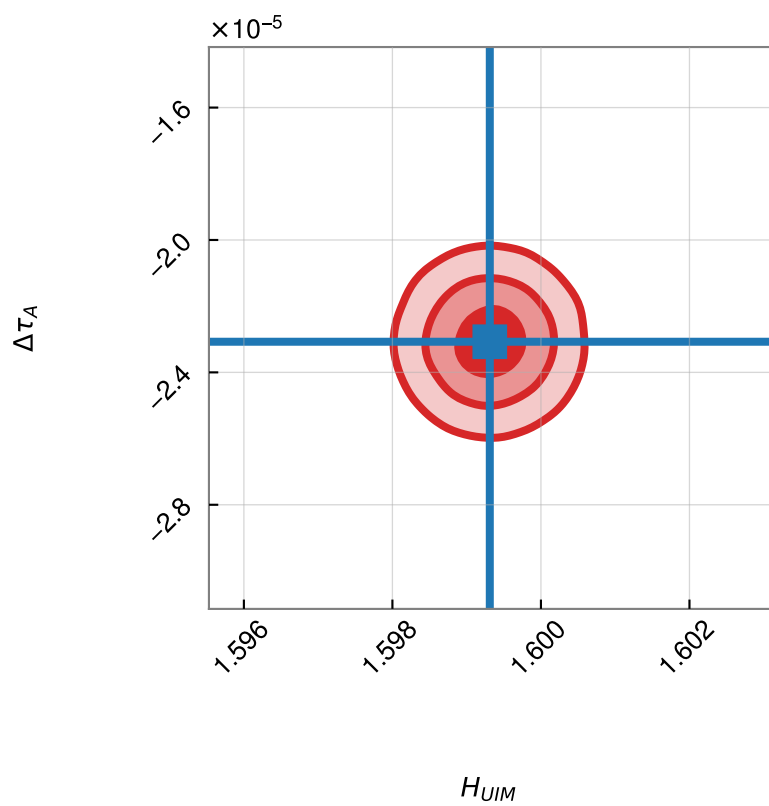
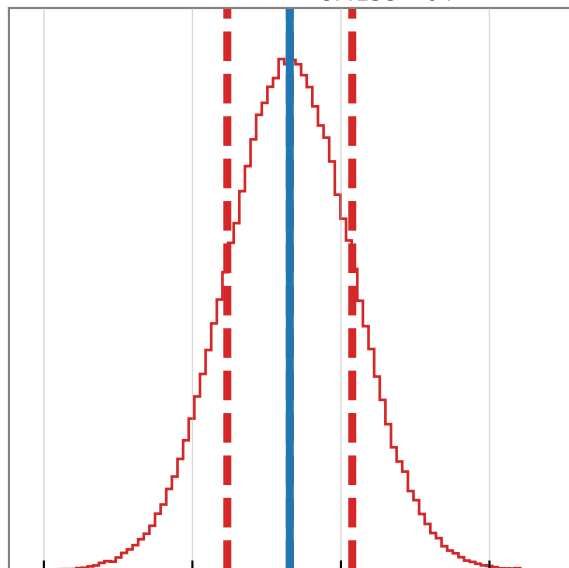


Parameter	(value +/-) value	+	-
Actuation Gain, Hau (N/A)	1.599	0.0008409 (0.05%)	0.0008415 (0.05%)
Residual time delay, tau_A (s)	-2.307e-05	1.893e-06 (-8.20%)	1.889e-06 (-8.19%)

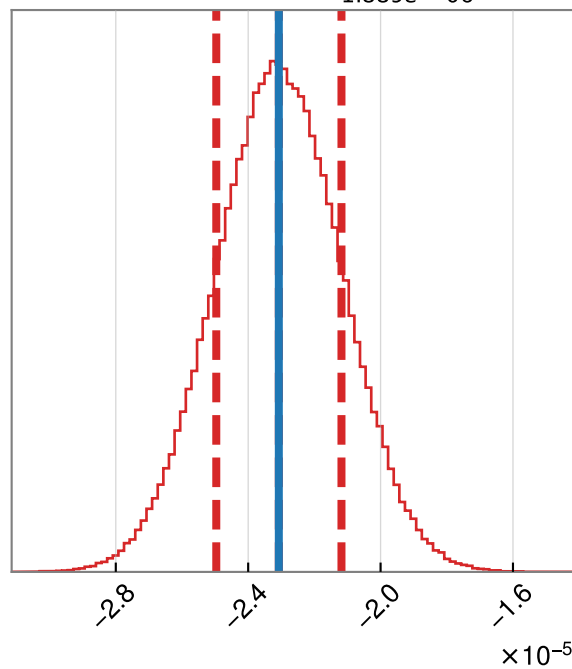
20230517T154837Z EX L1 actuation MCMC corner plot



$$H_{UIM} = 1.599e + 00^{+8.409e - 04}_{-8.415e - 04}$$



$$\Delta\tau_A = -2.307e - 05^{+1.893e - 06}_{-1.889e - 06}$$

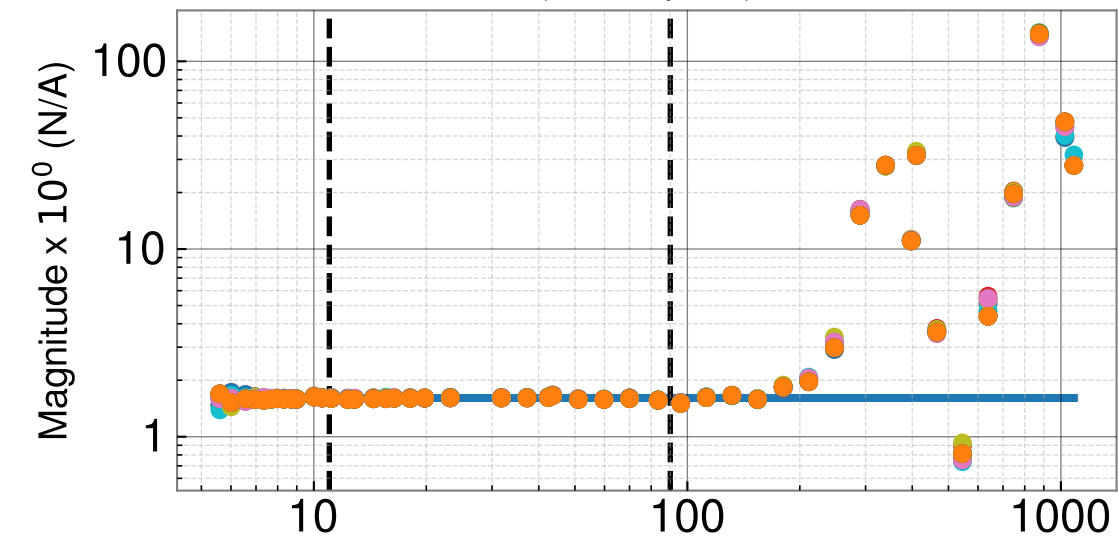


H1SUSEX L1 actuation model history

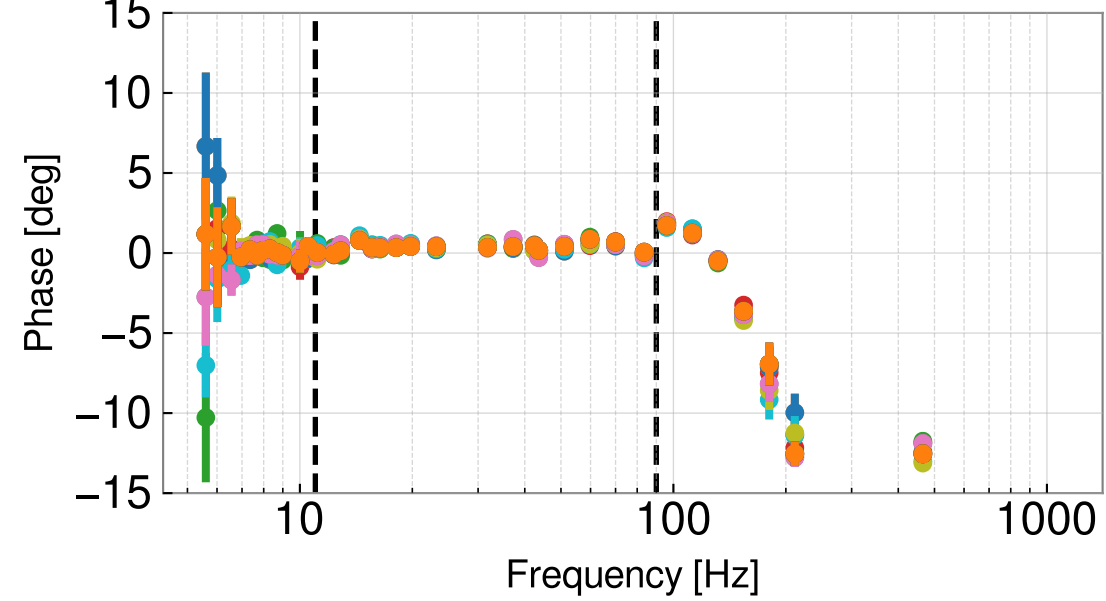
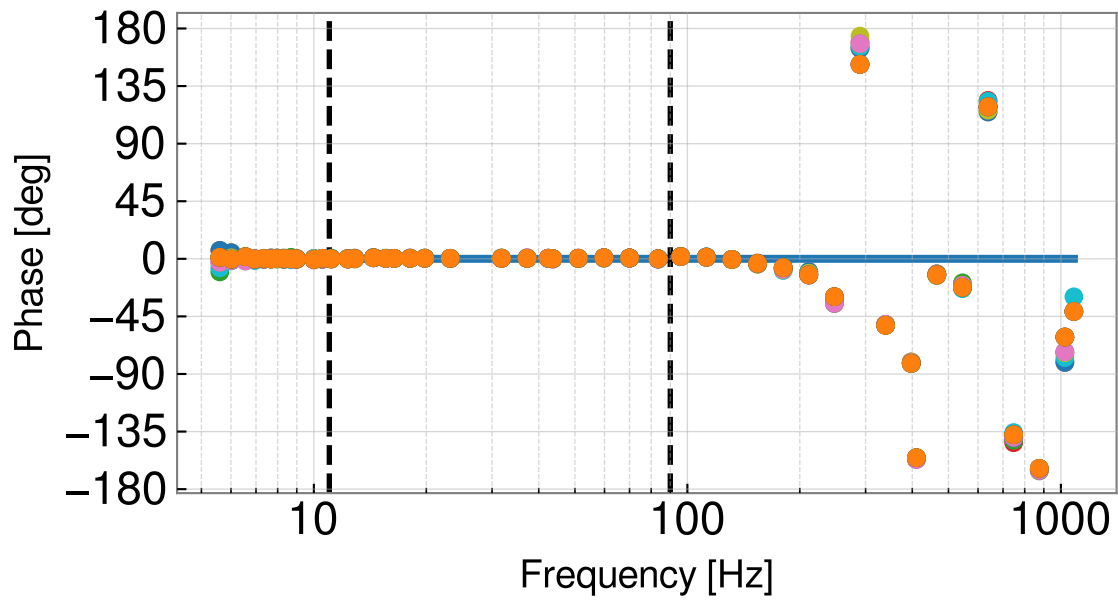
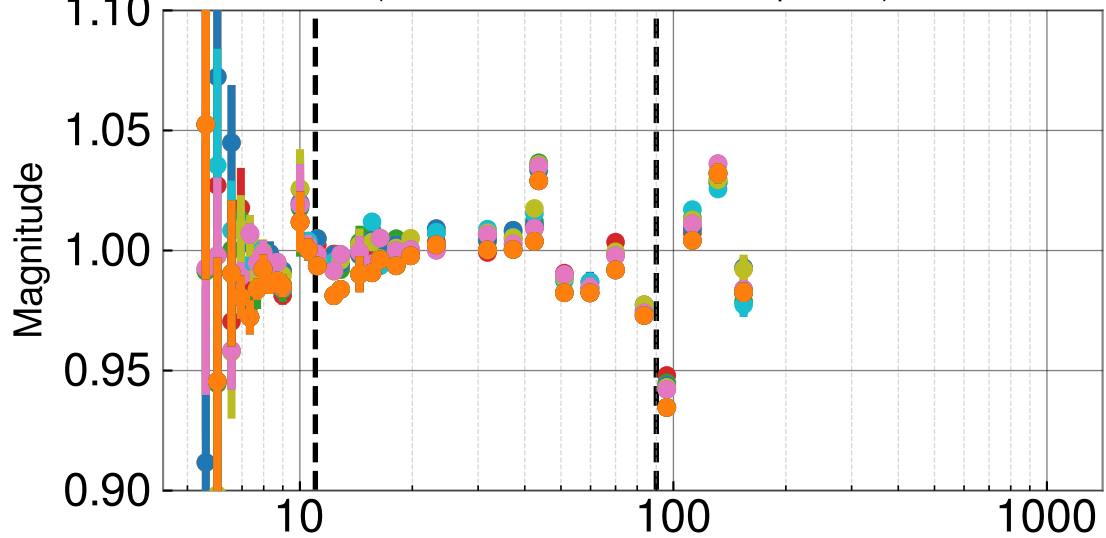
All fixed parameters from 2022021T201733Z/pydarm_H1.ini

- 20230510T062635Z model
- 20230517T154837Z measurement
- 20230509T062006Z measurement
- 20230505T165823Z measurement
- 20230517T154837Z measurement
- 20230509T062006Z measurement
- 20230505T165823Z measurement
- 20230517T154837Z measurement
- 20230508T171226Z measurement
- 20230504T050304Z measurement
- 20230506T173415Z measurement
- MCMC Fit Range: 11 Hz to 90 Hz

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

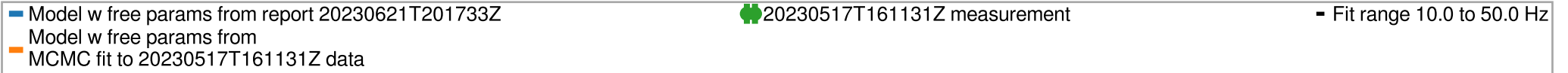


Actuation strength residuals
(measurement/model w. free params)

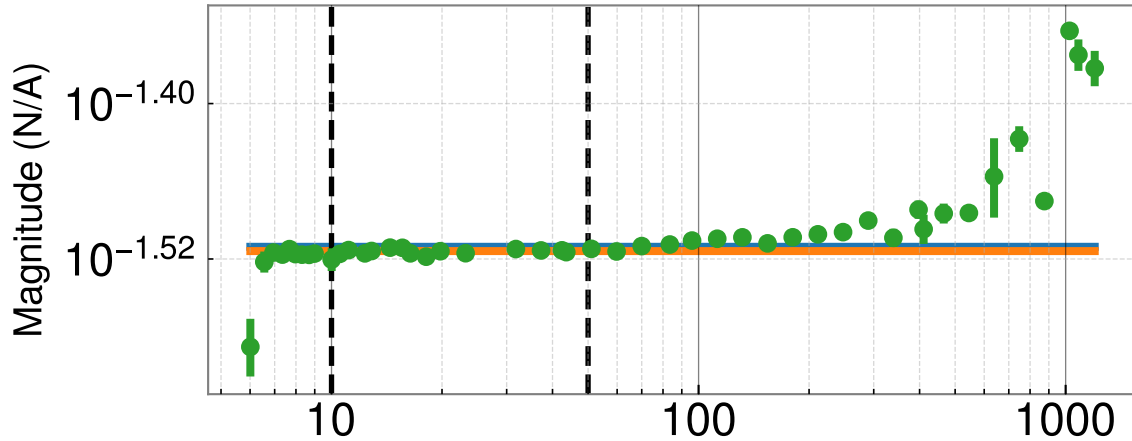


H1SUSEX L2 actuation model MCMC summary

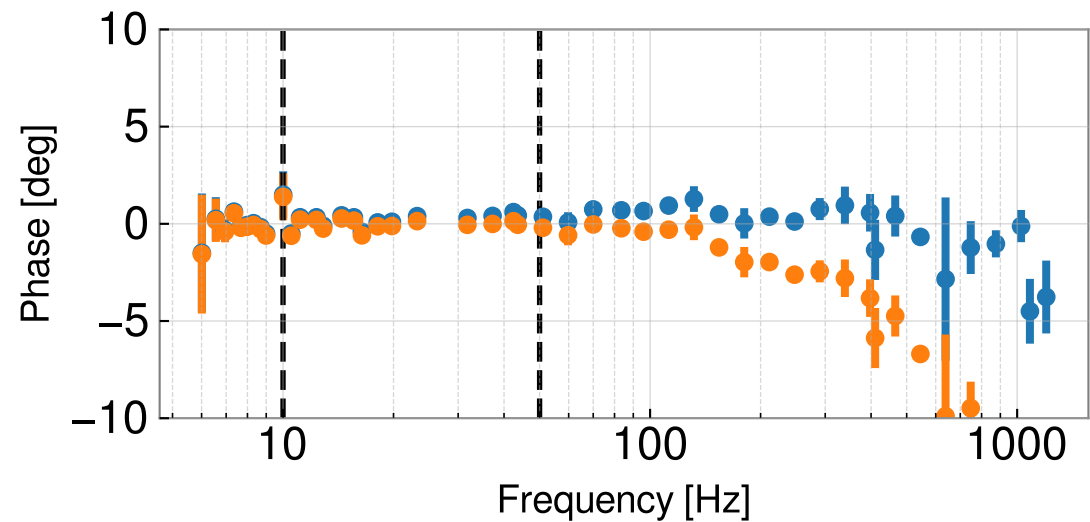
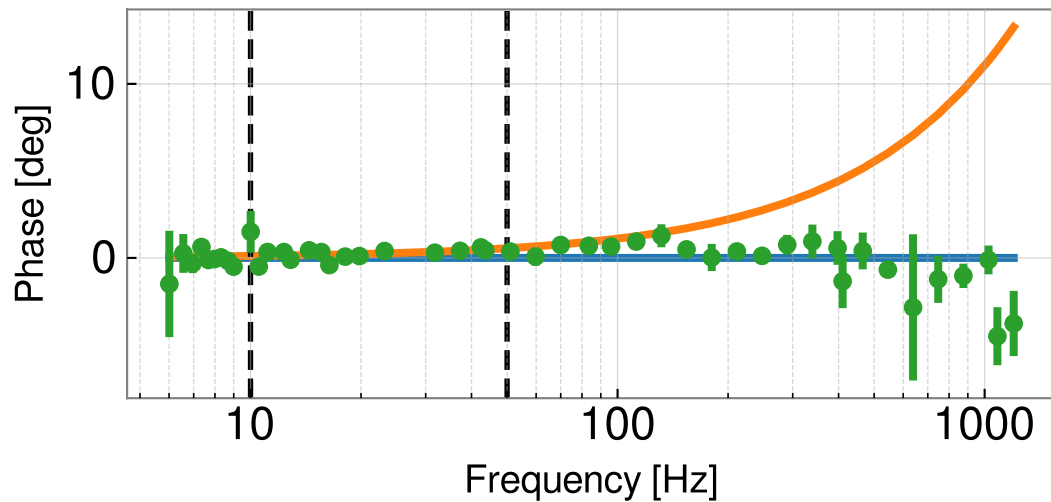
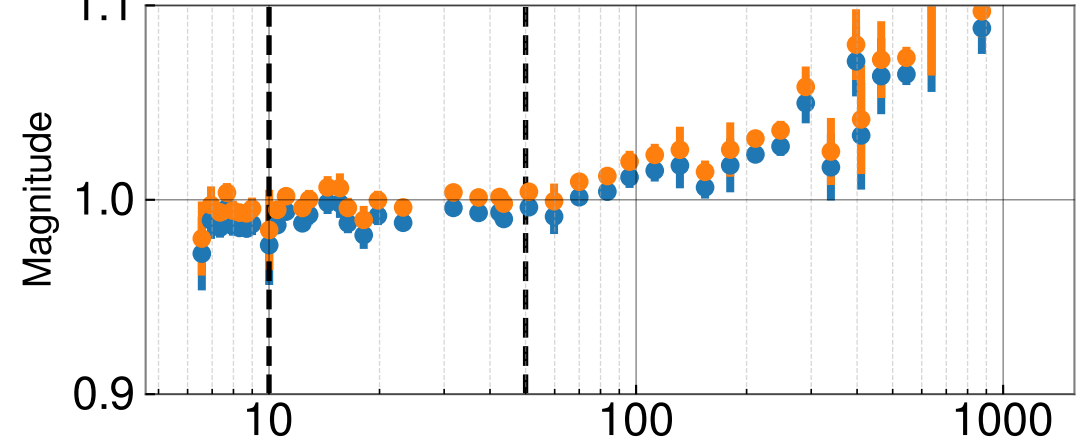
All fixed parameters drawn from 20230621T201733Z/pydarm_H1.ini



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

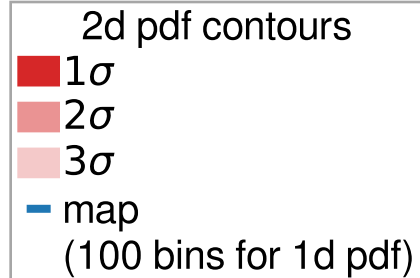


Actuation strength residuals
(measurement/model w. free params)

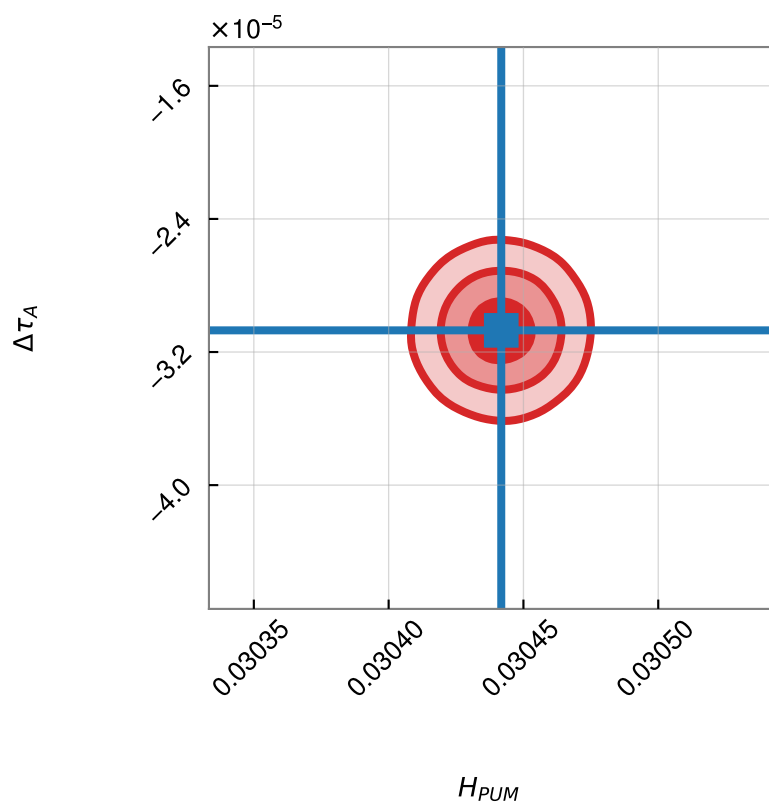
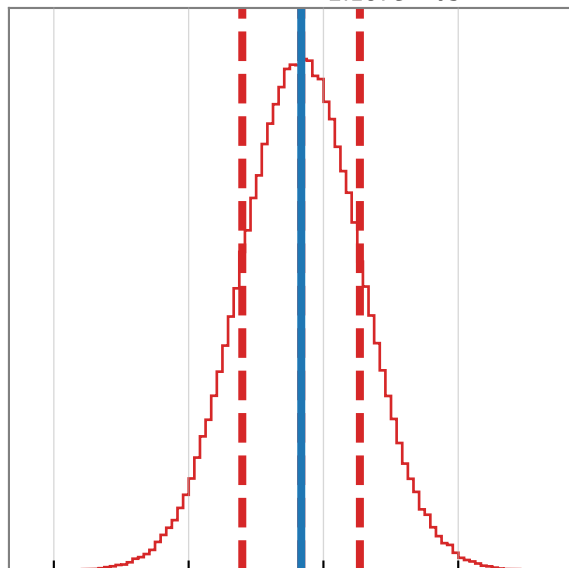


Parameter	(value +/-) value	+	-
Actuation Gain, Hap (N/A)	0.03044	2.175e-05 (0.07%)	2.187e-05 (0.07%)
Residual time delay, tau_A (s)	-3.07e-05	3.572e-06 (-11.64%)	3.537e-06 (-11.52%)

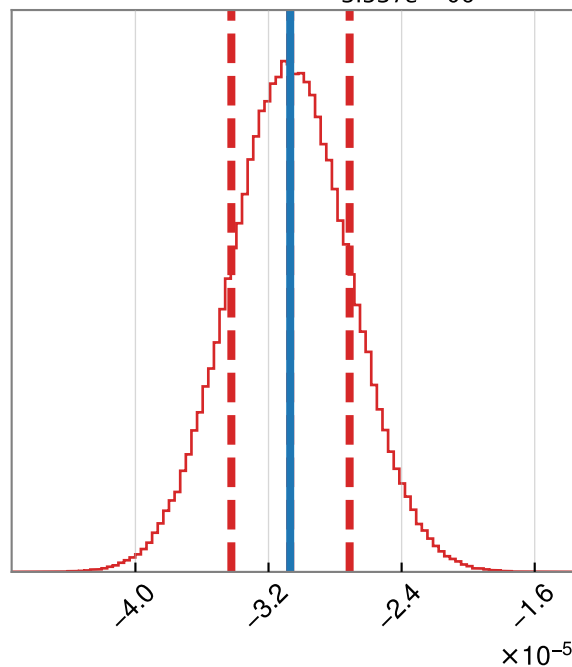
20230517T161131Z EX L2 actuation MCMC corner plot



$$H_{PUM} = 3.044e - 02^{+2.175e - 05}_{-2.187e - 05}$$



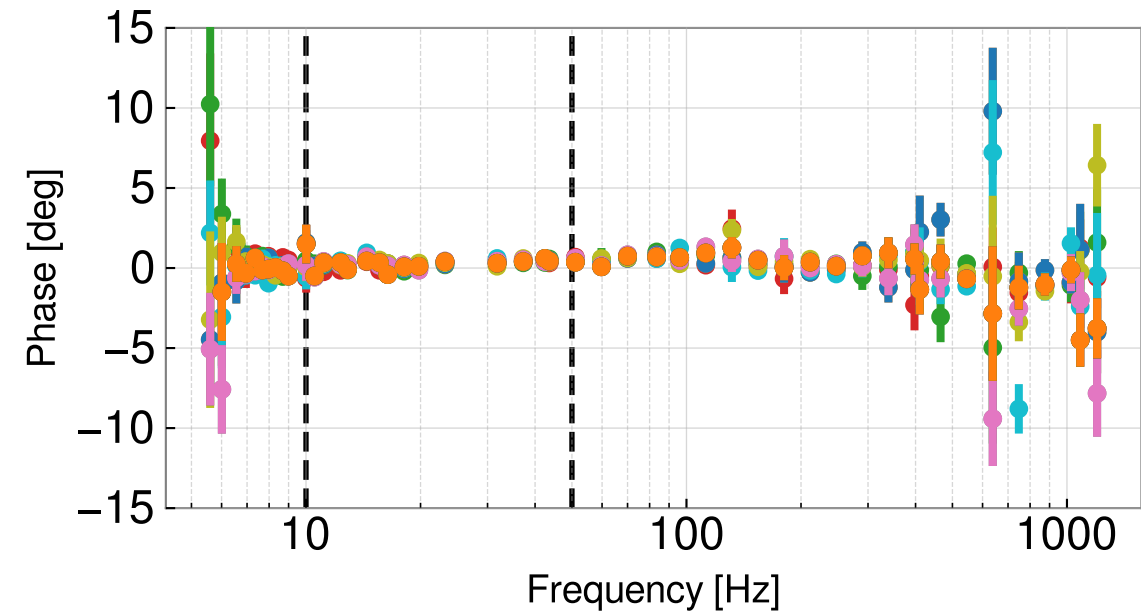
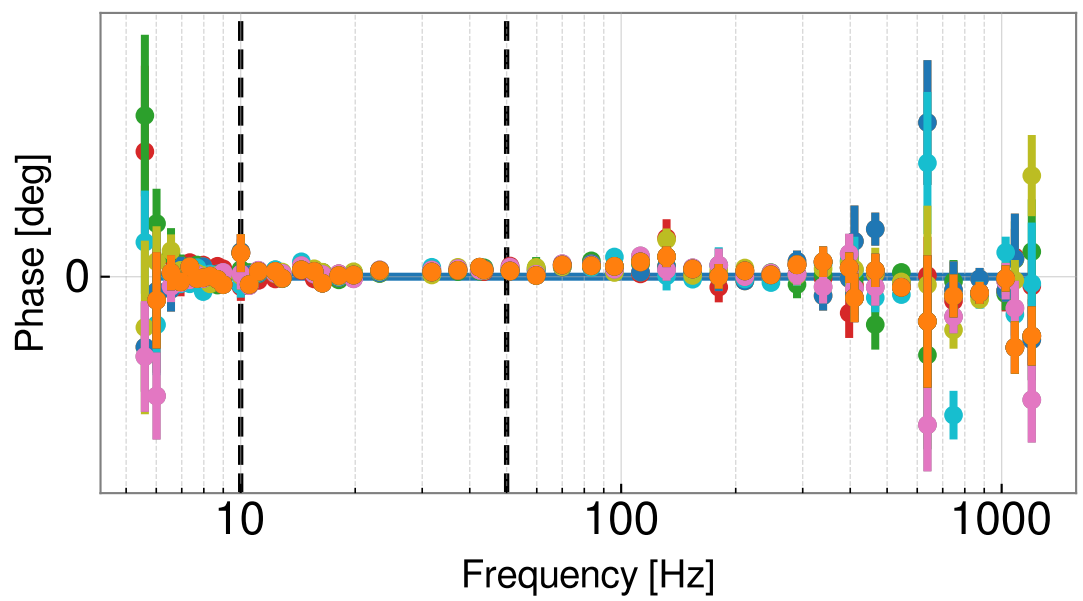
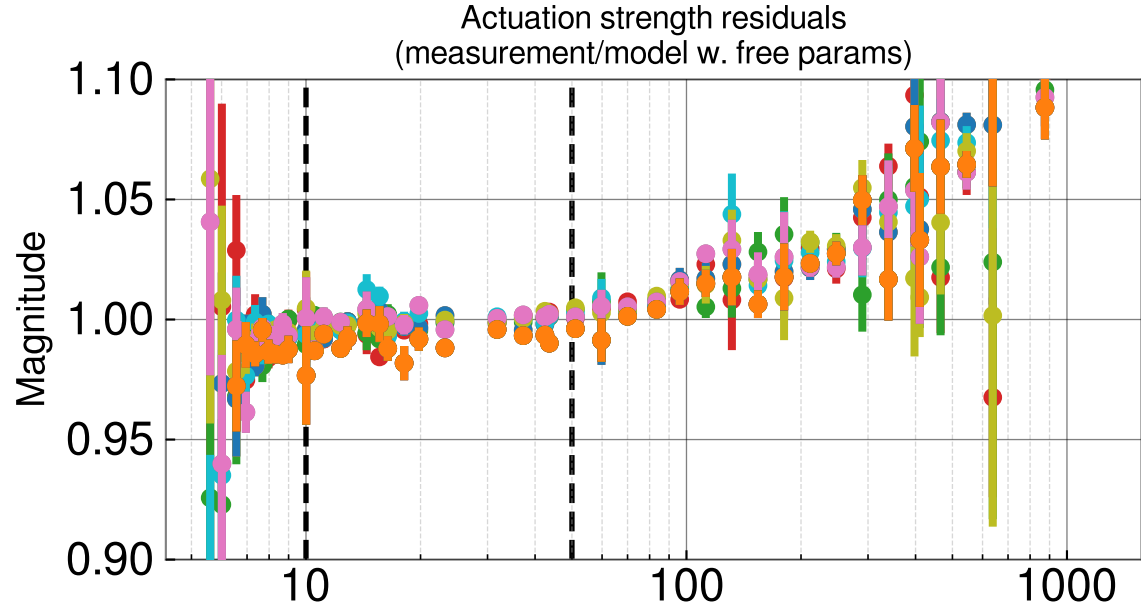
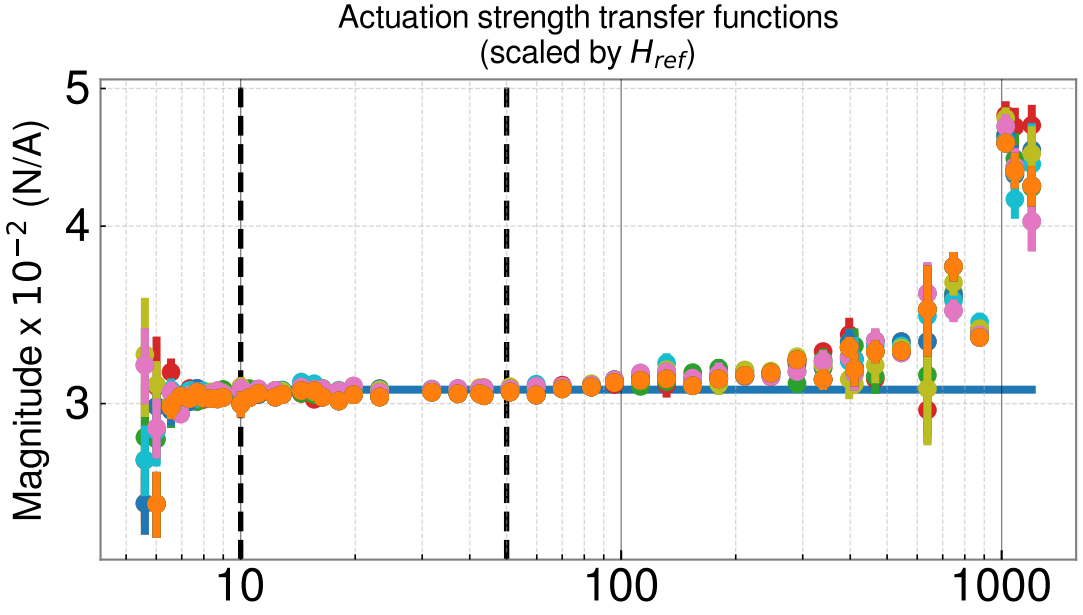
$$\Delta\tau_A = -3.070e - 05^{+3.572e - 06}_{-3.537e - 06}$$



H1 SUSEX L2 actuation model history

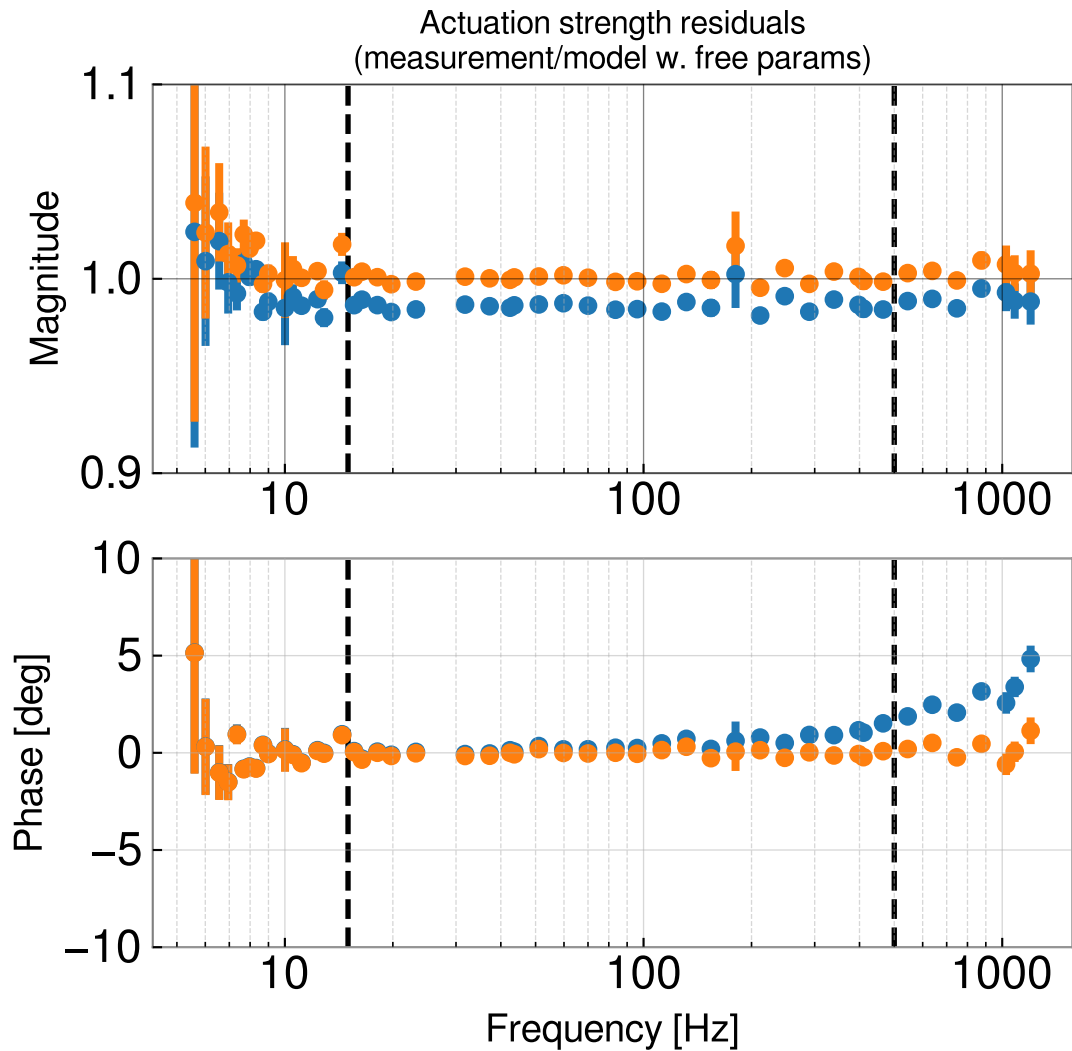
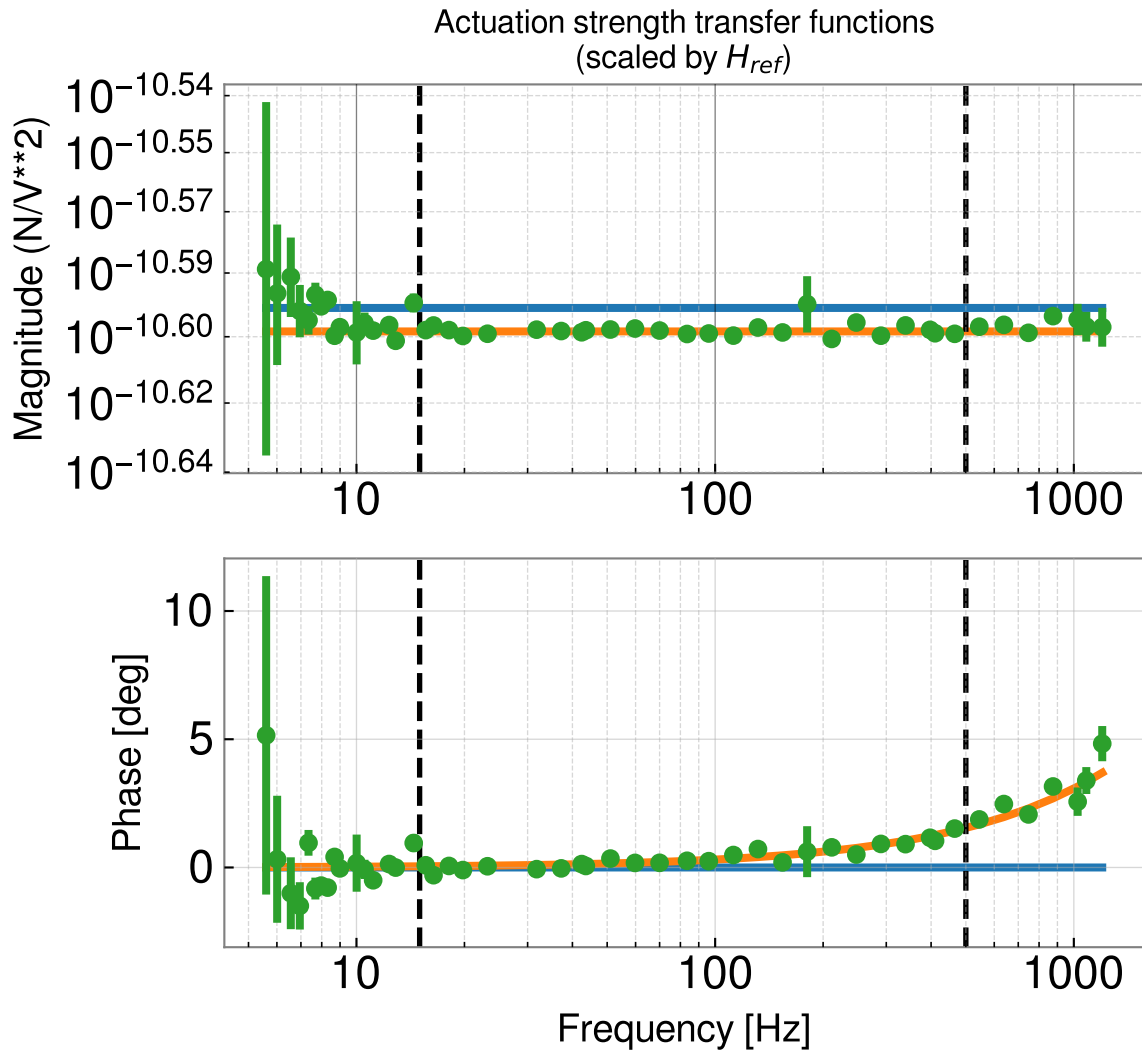
All fixed parameters from 20230504T052558Z/pydarm_H1.ini

- 20230510T062635Z model
- 20230517T161131Z measurement
- 20230509T064300Z measurement
- 20230505T172117Z measurement
- 20230517T161131Z measurement
- 20230509T064300Z measurement
- 20230505T172117Z measurement
- 20230517T161131Z measurement
- 20230509T064300Z measurement
- 20230505T010115Z measurement
- 20230517T161131Z measurement
- 20230504T052558Z measurement
- MCMC Fit Range: 10 Hz to 50 Hz



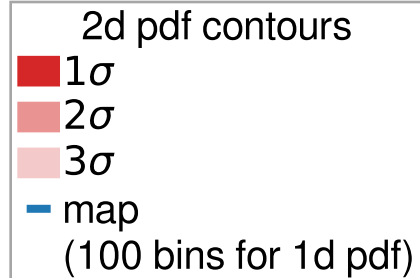
H1SUSEX L3 actuation model MCMC summary

All fixed parameters drawn from 20230621T201733Z/pydarm_H1.ini

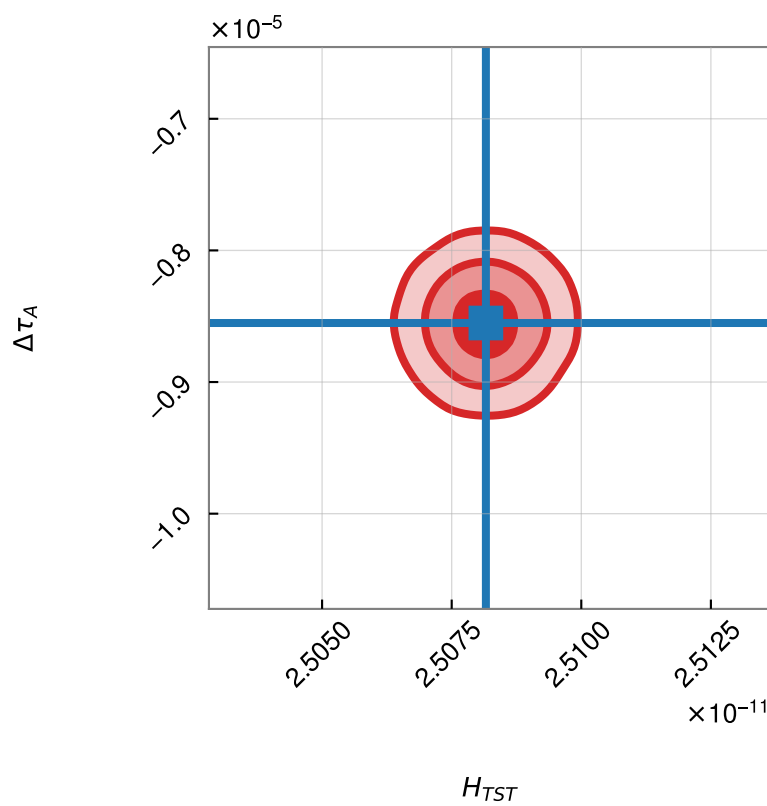
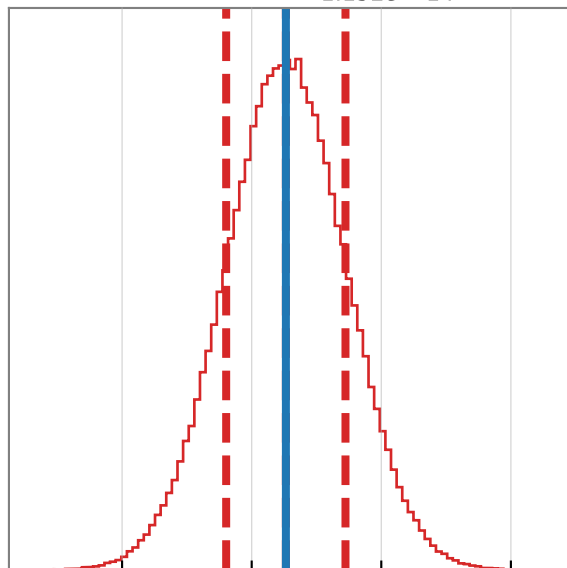


Parameter	(value +/-) value	+	-
Actuation Gain, Hat (N/V^{**2})	2.508e-11	1.15e-14 (0.05%)	1.152e-14 (0.05%)
Residual time delay, tau_A (s)	-8.552e-06	4.579e-07 (-5.35%)	4.622e-07 (-5.40%)

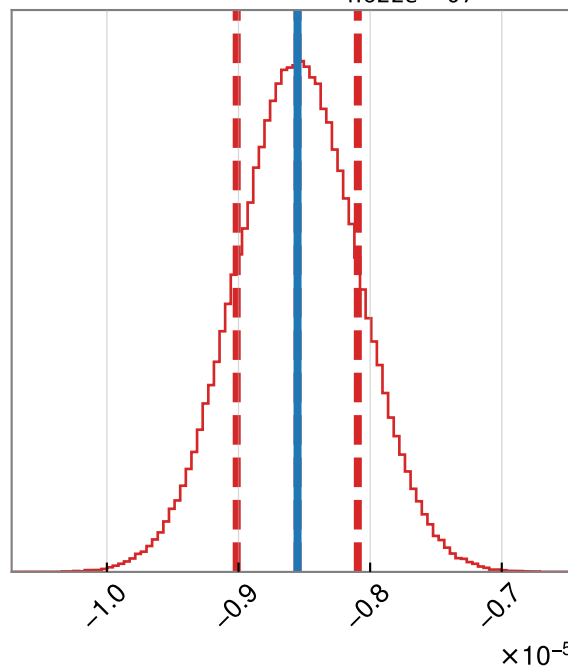
20230517T163635Z EX L3 actuation MCMC corner plot



$$H_{TST} = 2.508e - 11^{+1.150e - 14}_{-1.152e - 14}$$



$$\Delta\tau_A = -8.552e - 06^{+4.579e - 07}_{-4.622e - 07}$$

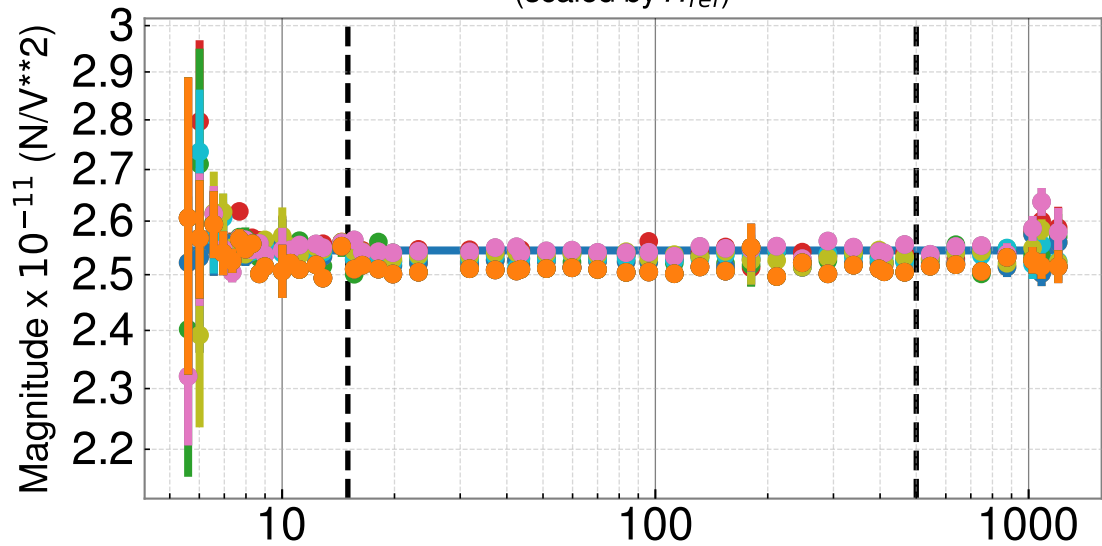


H1 SUSEX L3 actuation model history

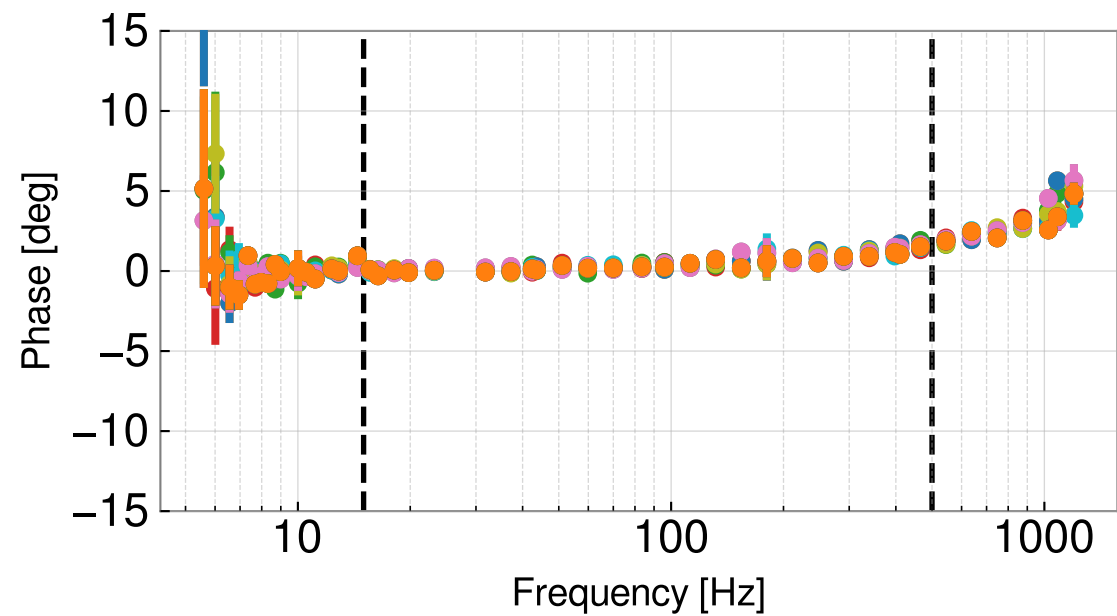
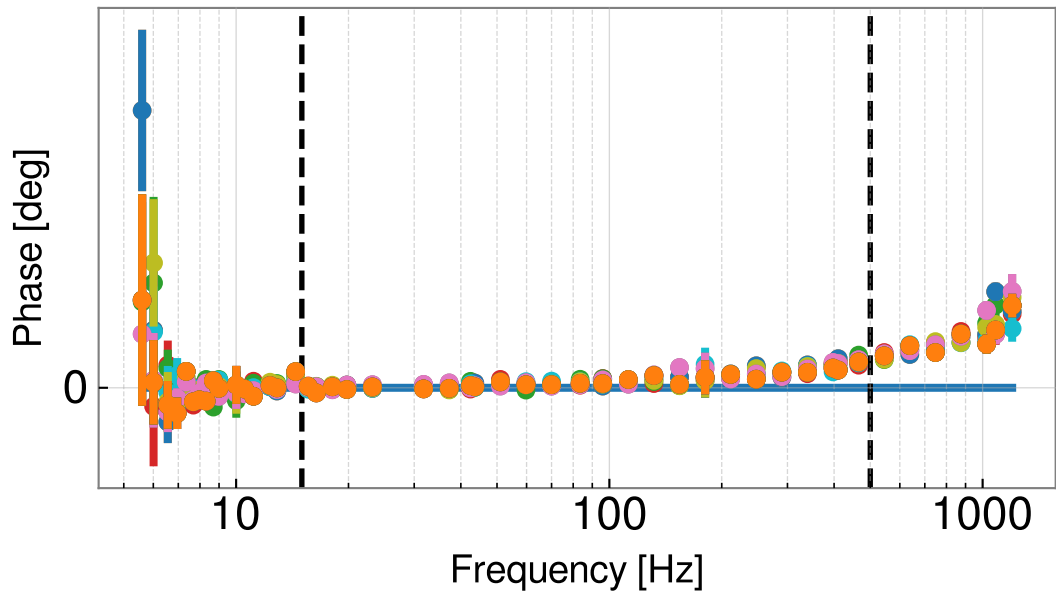
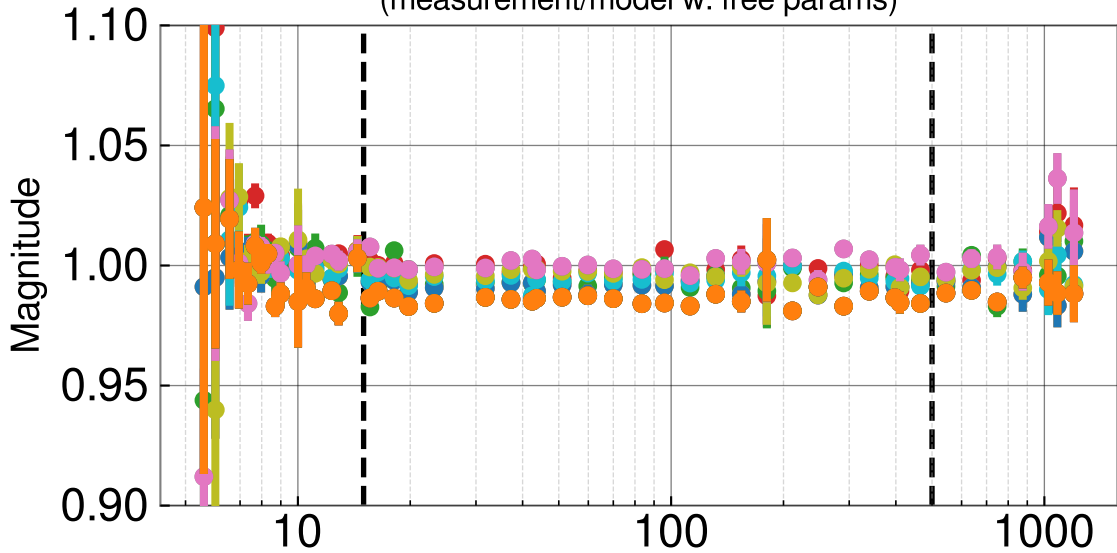
All fixed parameters from 20230504T055102Z/pydarm_H1.ini

- 20230510T062635Z model
- 20230517T163635Z measurement
- 20230517T163635Z measurement
- 20230517T163635Z measurement
- 20230517T163635Z measurement
- 20230517T163635Z measurement
- 20230509T070804Z measurement
- 20230509T070804Z measurement
- 20230508T180024Z measurement
- 20230506T182213Z measurement
- 20230505T174621Z measurement
- 20230505T174621Z measurement
- 20230505T012619Z measurement
- 20230504T055102Z measurement
- MCMC Fit Range: 15 Hz to 500 Hz

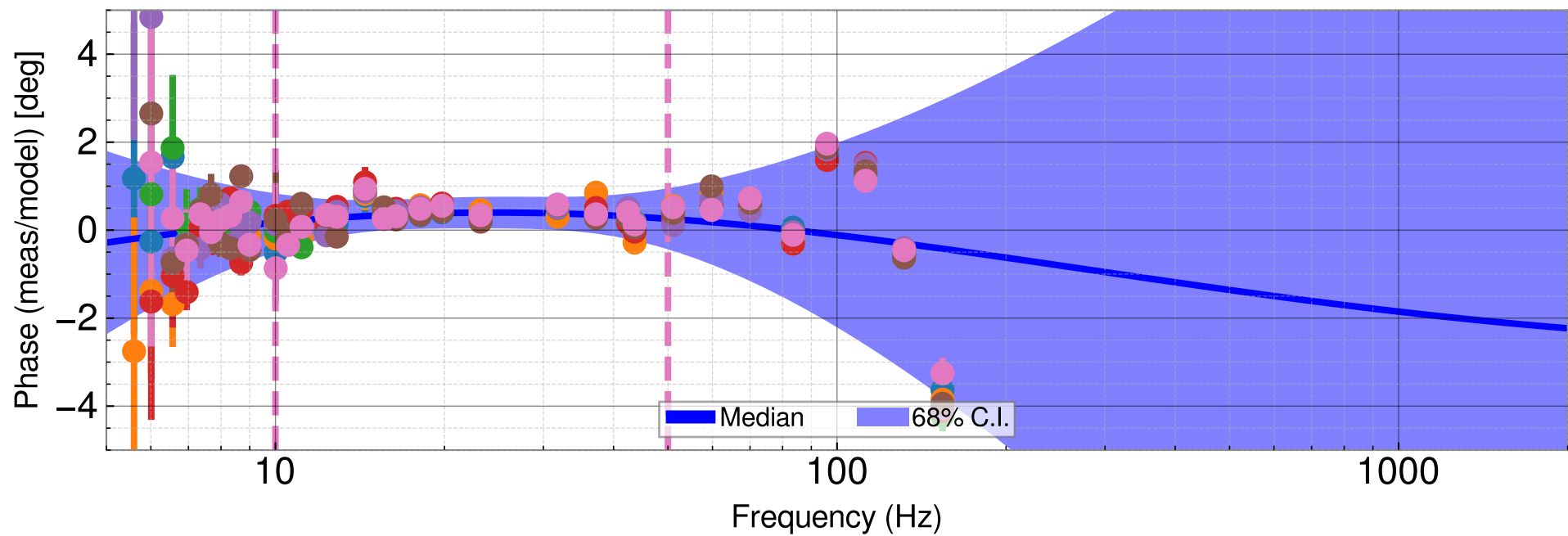
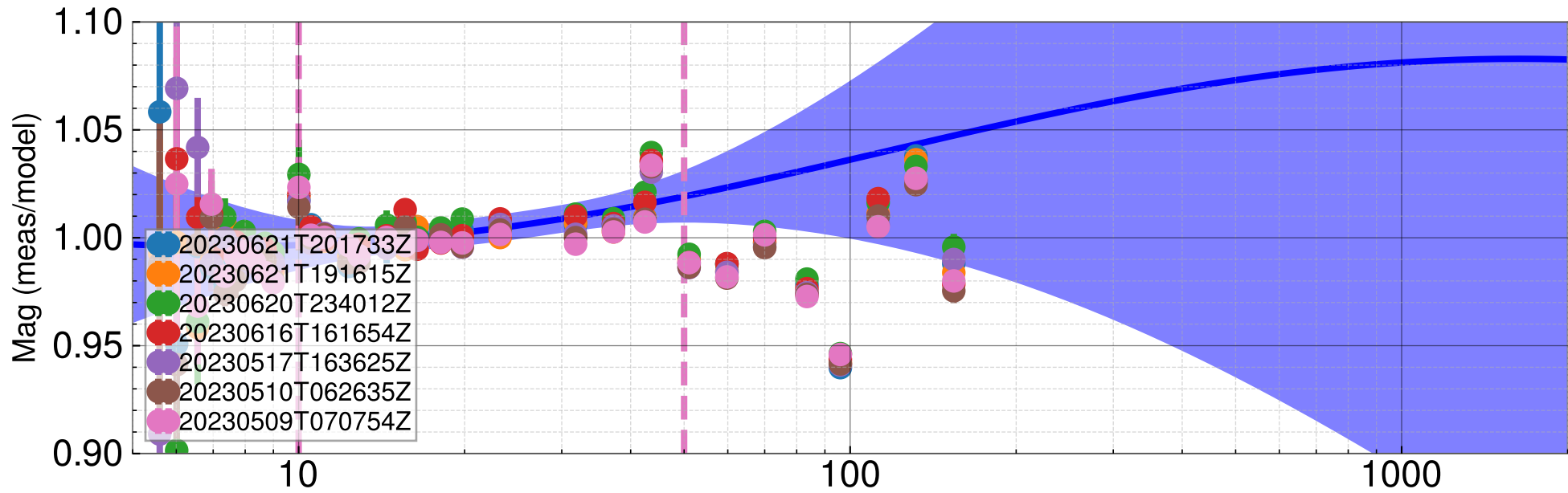
Actuation strength transfer functions
(scaled by H_{ref})



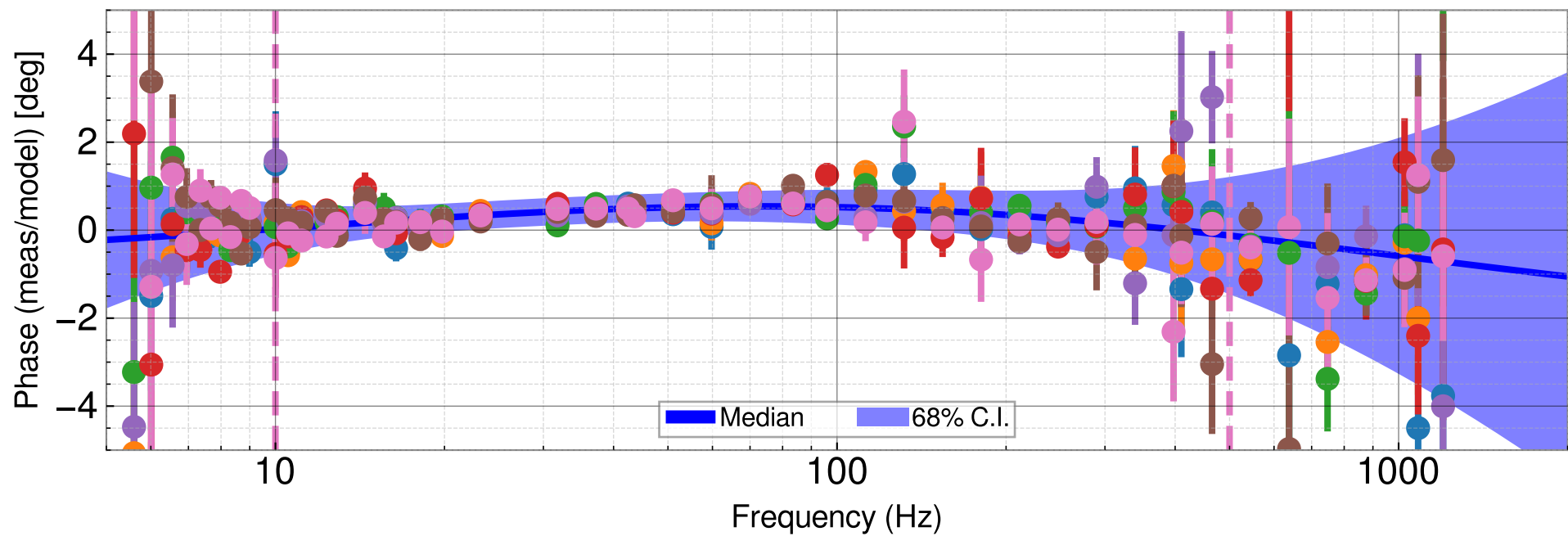
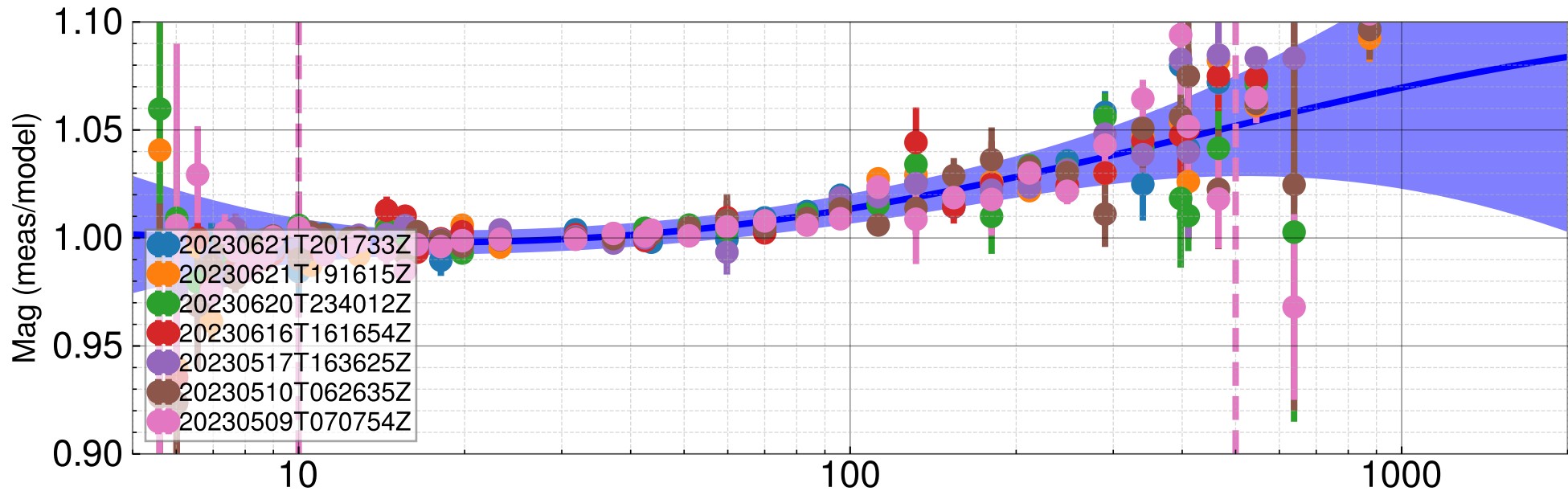
Actuation strength residuals
(measurement/model w. free params)



Actuation/L1/EX GPR



Actuation/L2/EX GPR



Actuation/L3/EX GPR

