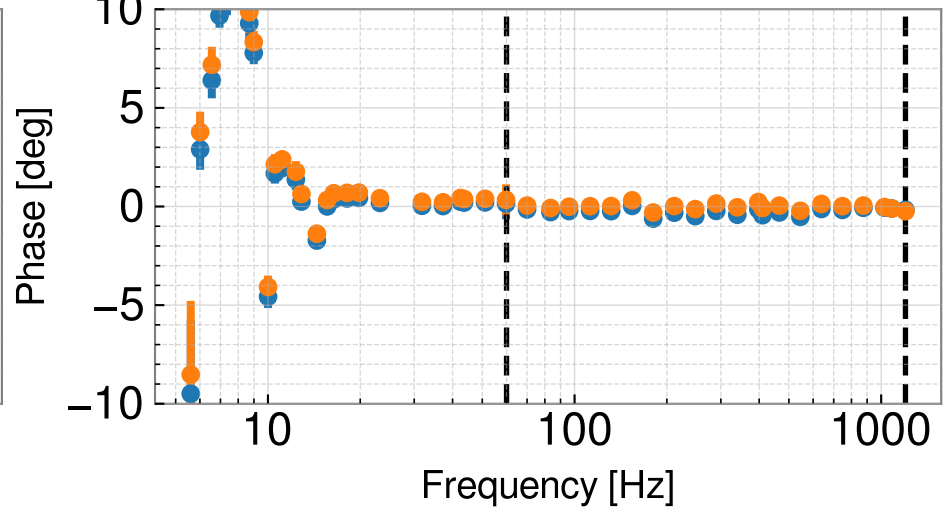
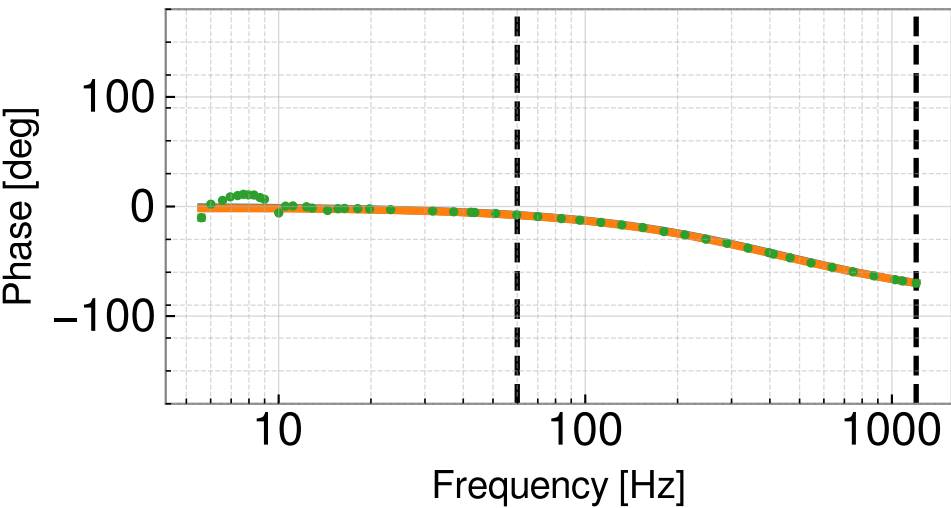
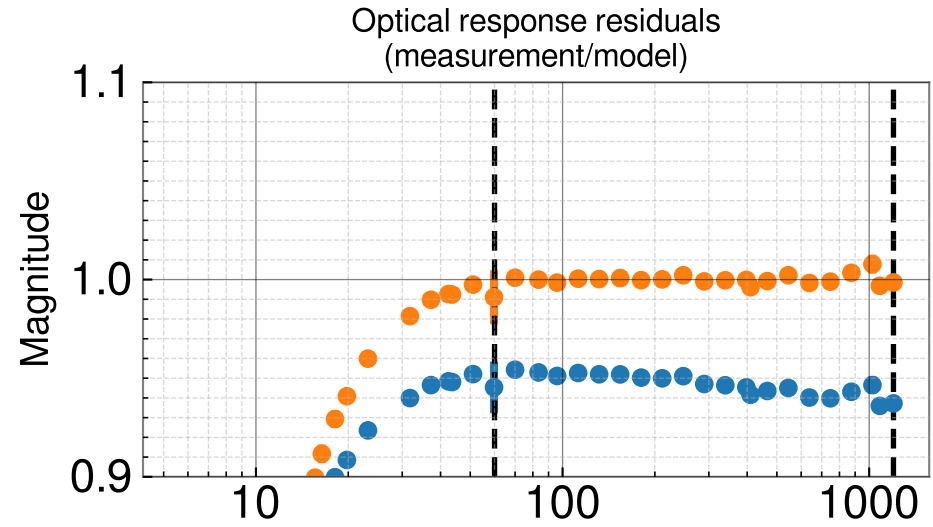
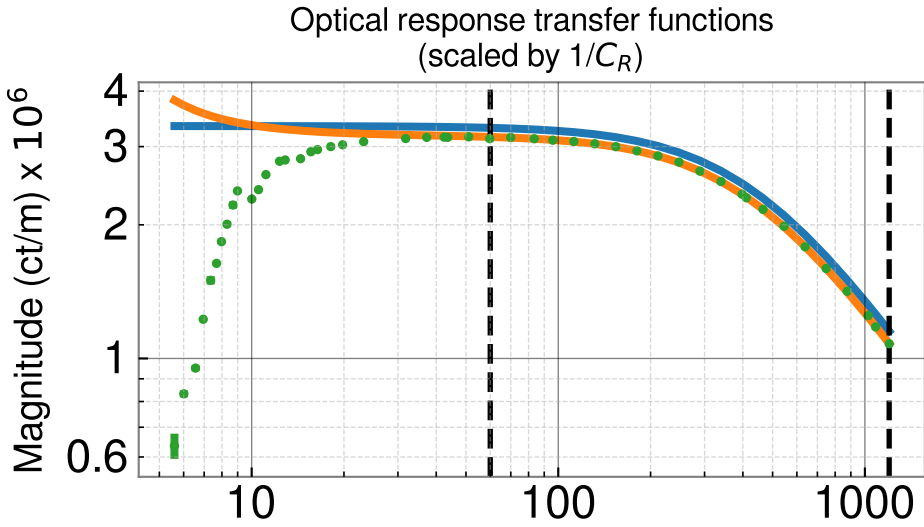
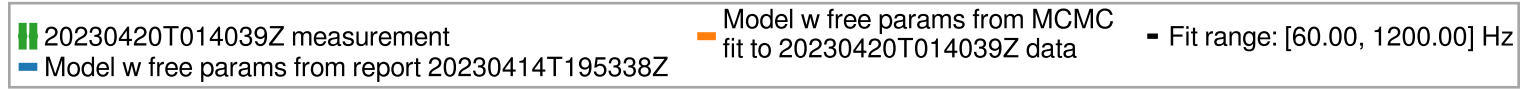


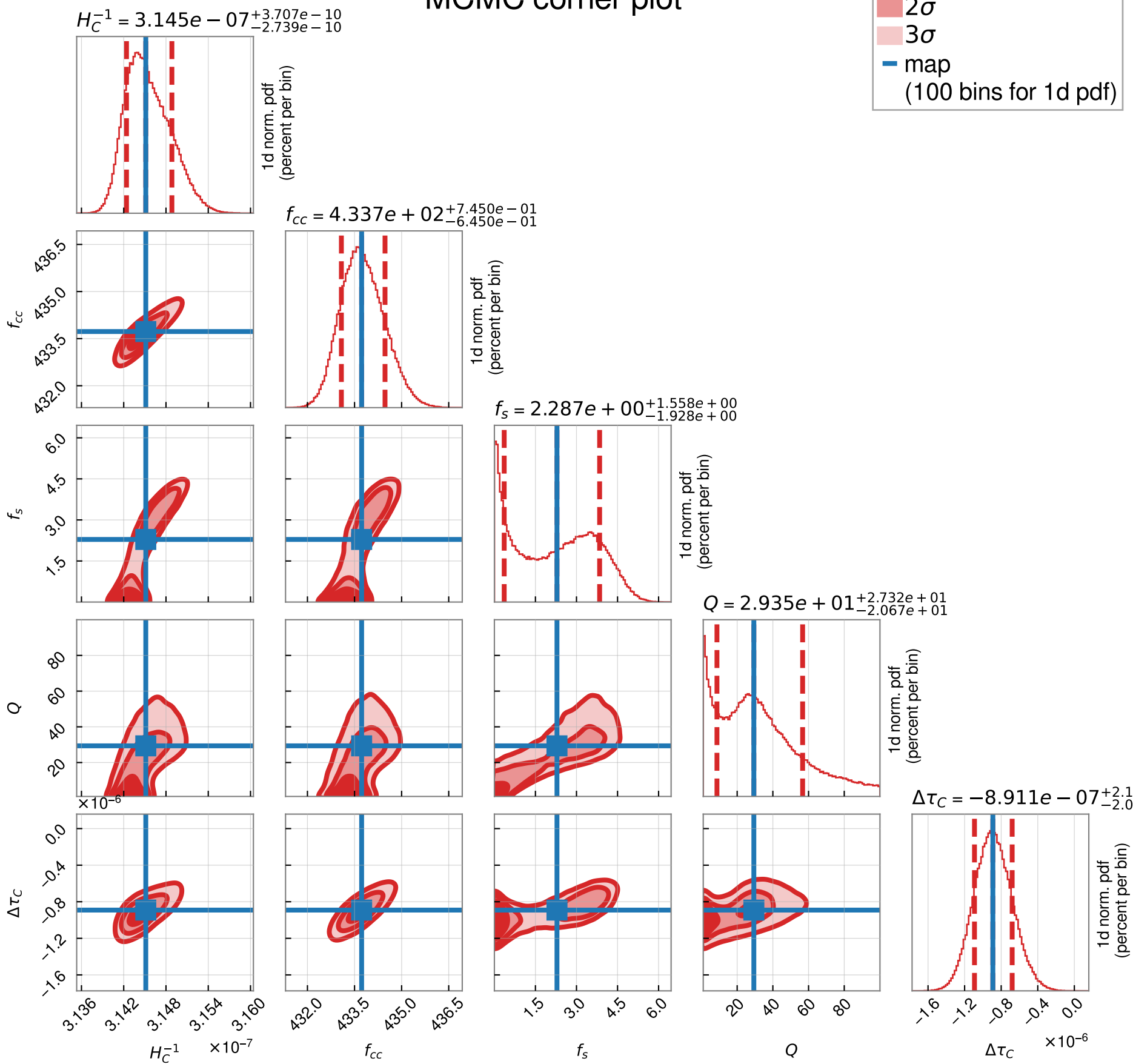
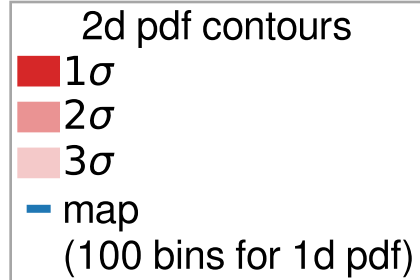
H1 sensing model MCMC summary

All fixed parameters drawn from /ligo/groups/cal/data/H1/reports/20230420T014029Z/pydarm_H1.ini



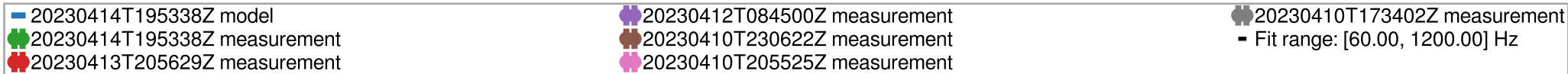
Parameter	(value +/-) value	+	-
Inv. Optical gain, H_c (m/ct)	3.145e-07	3.707e-10 (0.12%)	2.739e-10 (0.09%)
Cavity_pole, f_cc (Hz)	433.7	0.745 (0.17%)	0.645 (0.15%)
Detuned SRC spring frequency, f_s (Hz)	2.287	1.558 (68.14%)	1.928 (84.32%)
Detuned SRC spring quality factor, Q_s	29.35	27.32 (93.09%)	20.67 (70.41%)
Residual time delay, tau_c (s)	-8.911e-07	2.112e-07 (-23.70%)	2.009e-07 (-22.55%)

20230420T014039Z sensing function MCMC corner plot

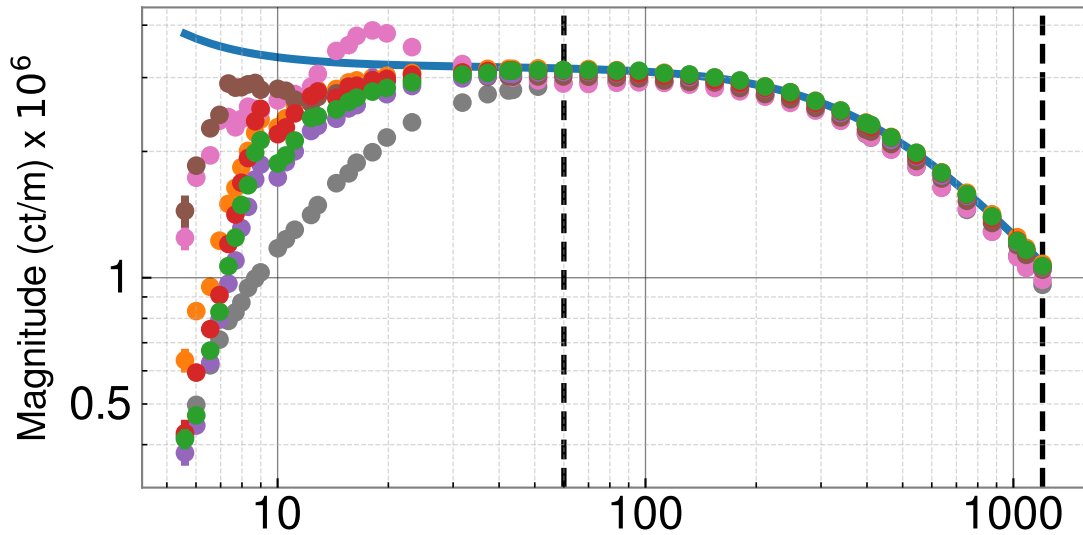


H1 sensing model history

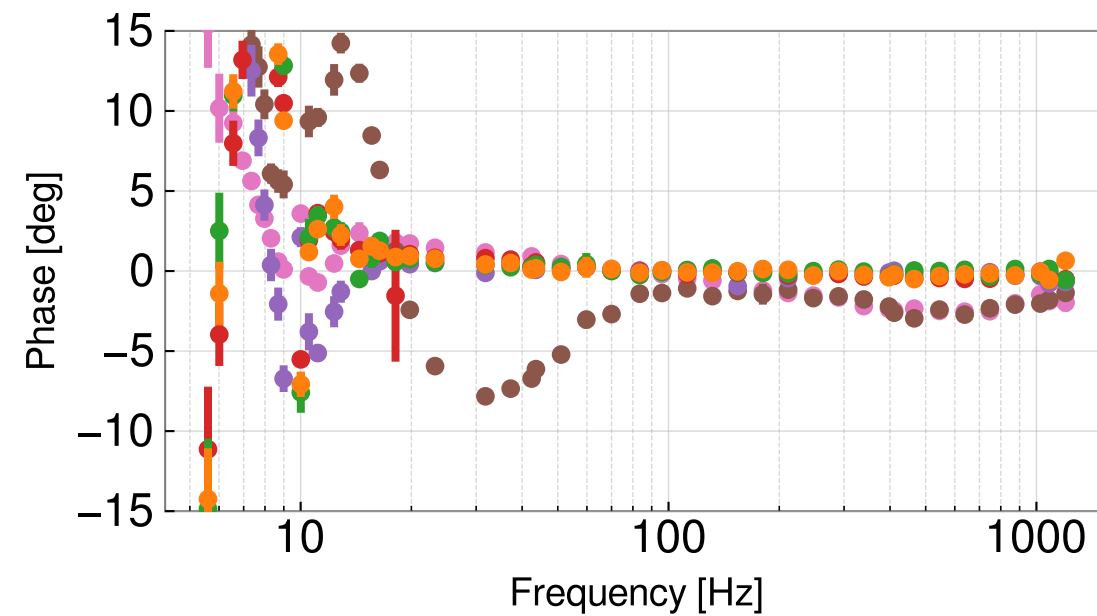
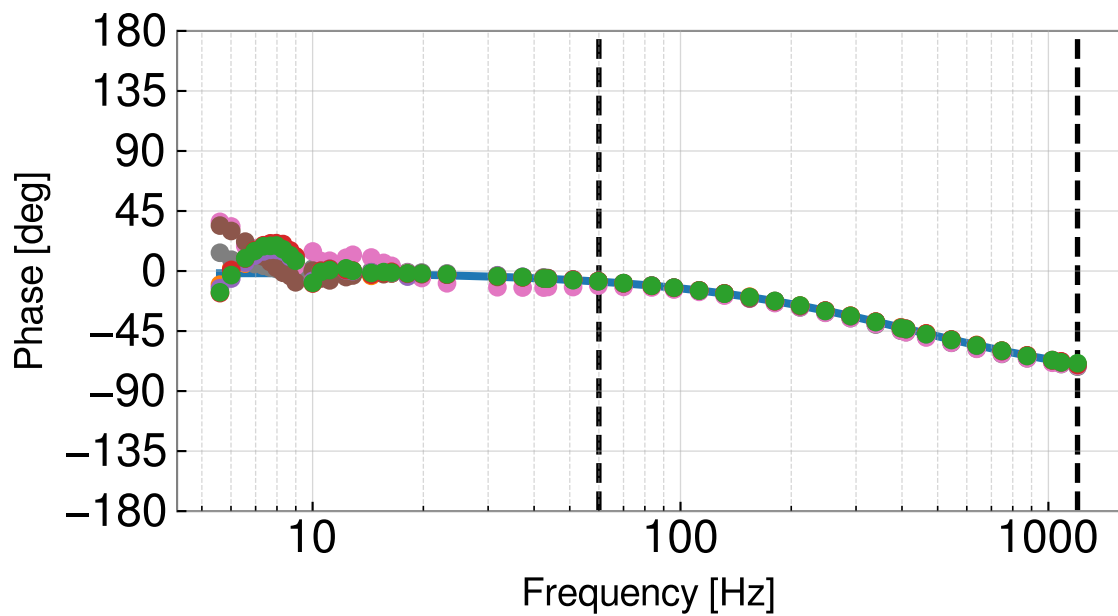
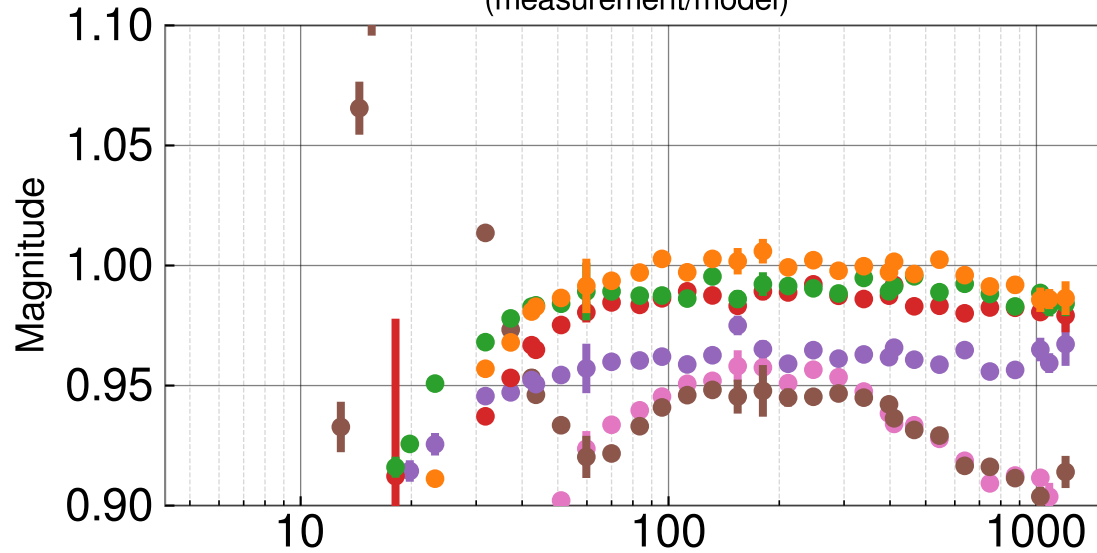
All fixed parameters drawn from /ligo/groups/cal/data/H1/reports/20230420T014029Z/pydarm_H1.ini



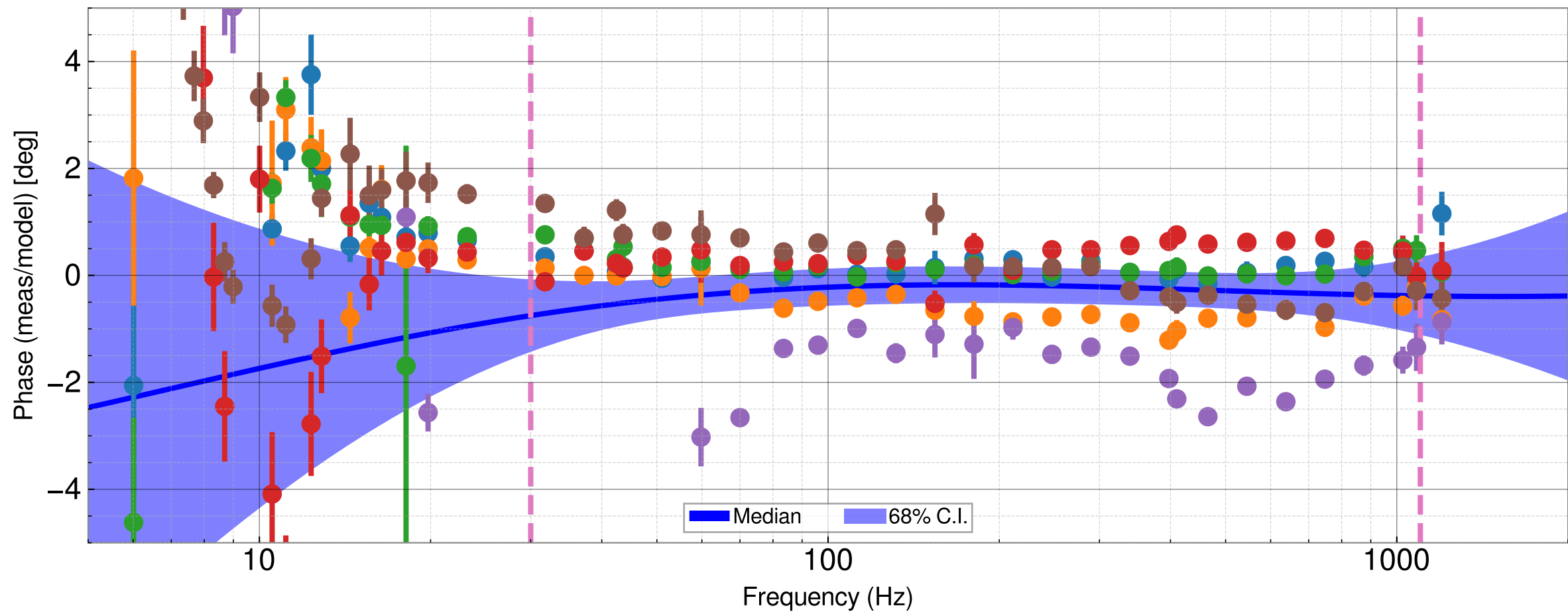
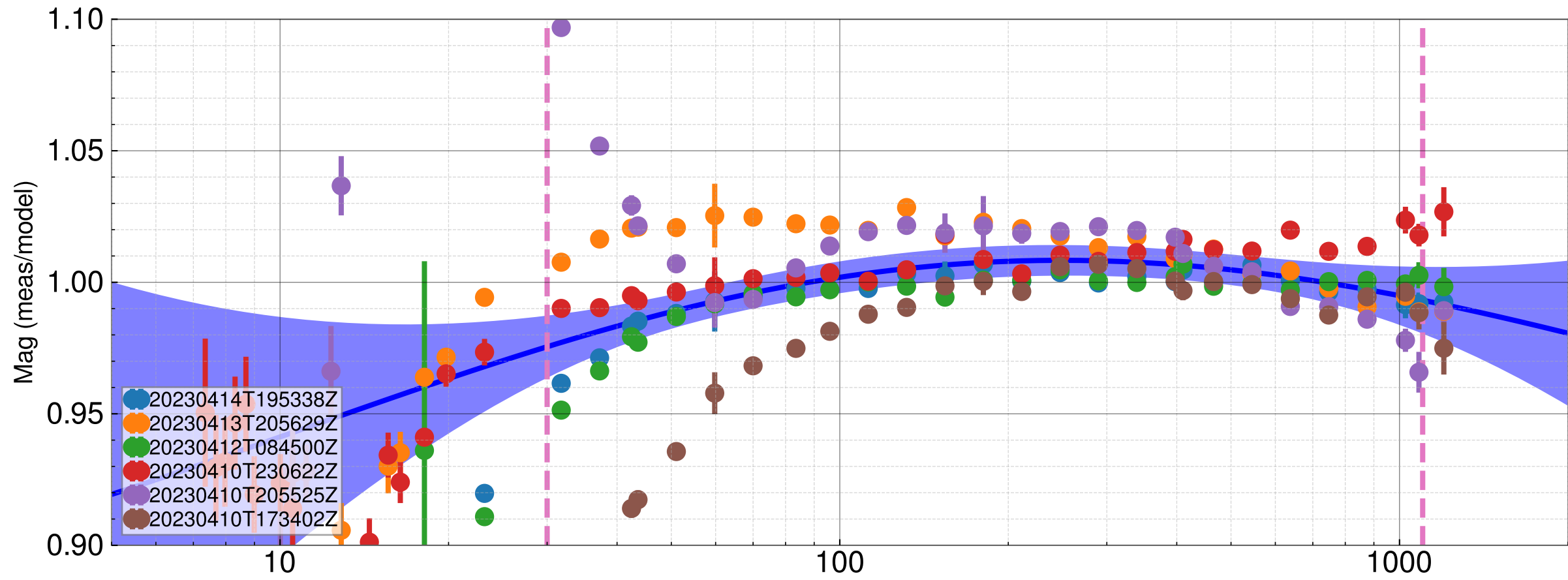
Optical response transfer functions
(scaled by $1/C_R$)



Optical response residuals
(measurement/model)



Sensing GPR

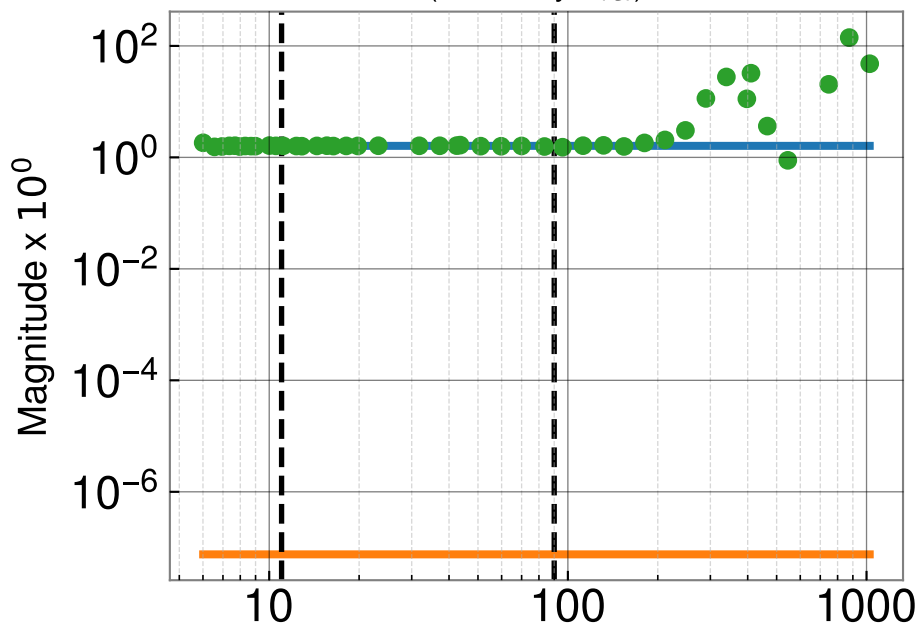


H1SUSEX L1 actuation model MCMC summary

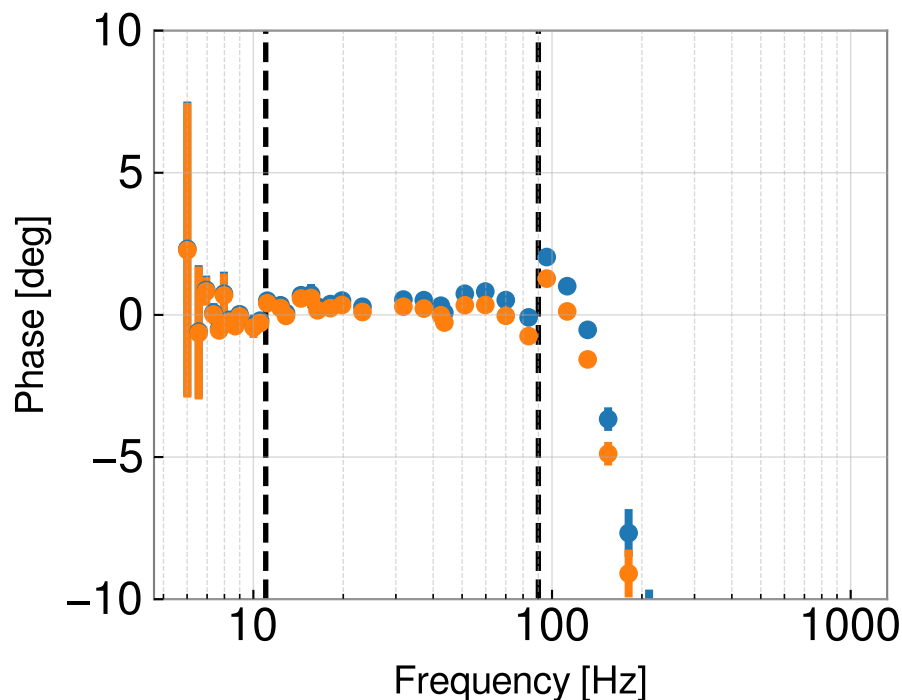
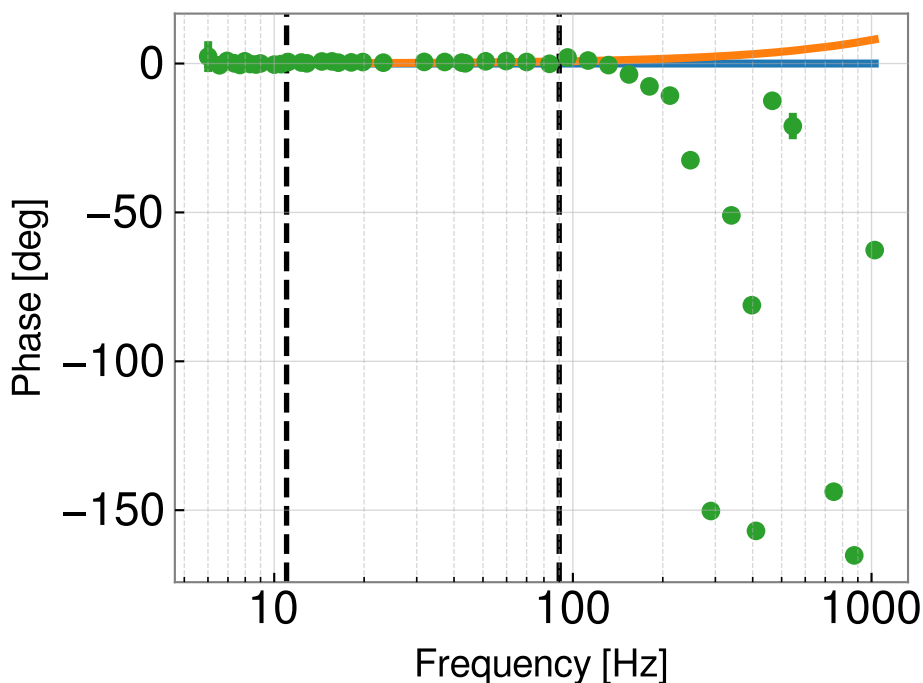
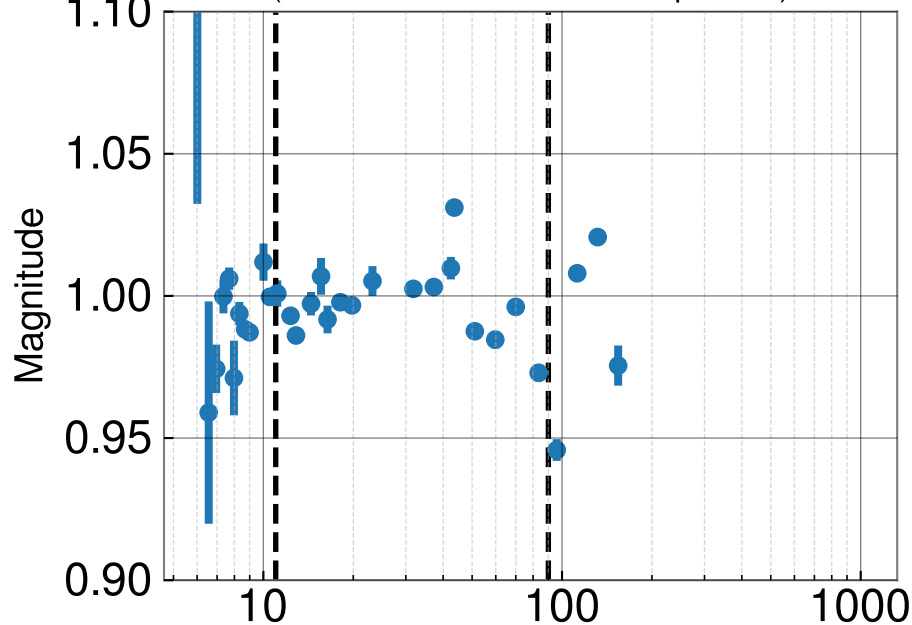
All fixed parameters drawn from /ligo/groups/cal/data/H1/reports/20230420T014029Z/pydarm_H1.ini

— Model w free params from report 20230414T195338Z
 — Model w free params from MCMC fit to 20230410T164221Z data
 - - - Fit range 11.0 to 90.0 Hz

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

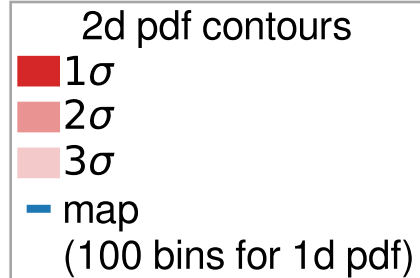


Actuation strength residuals
(measurement/model w. free params)

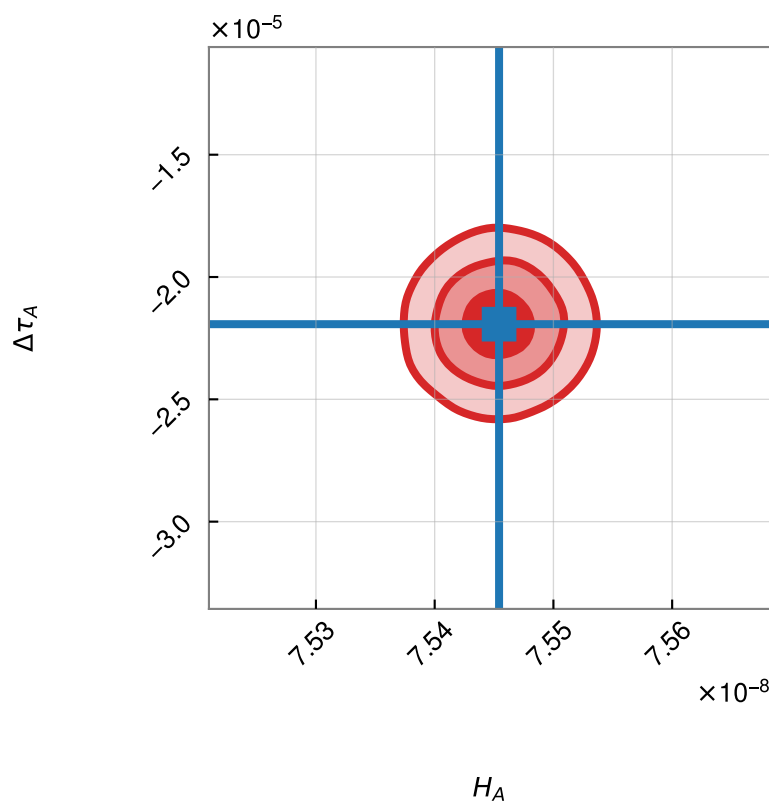
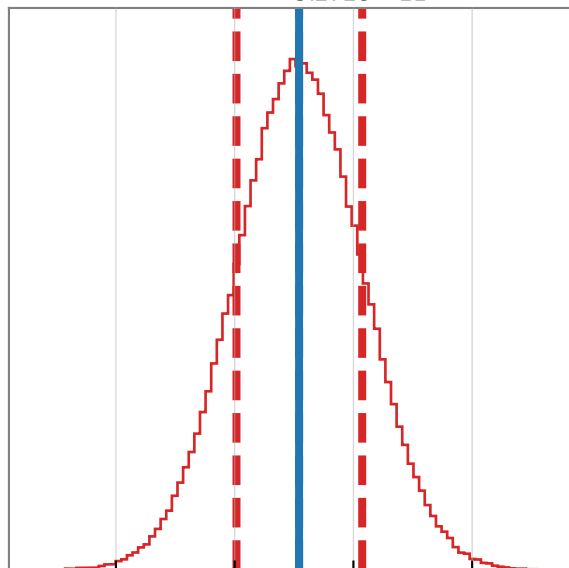


Parameter	(value +/-) value	+	-
Actuation Gain, Hau (N/A)	7.545e-08	5.317e-11 (0.07%)	5.272e-11 (0.07%)
Residual time delay, tau_a (s)	-2.193e-05	2.533e-06 (-11.55%)	2.507e-06 (-11.43%)

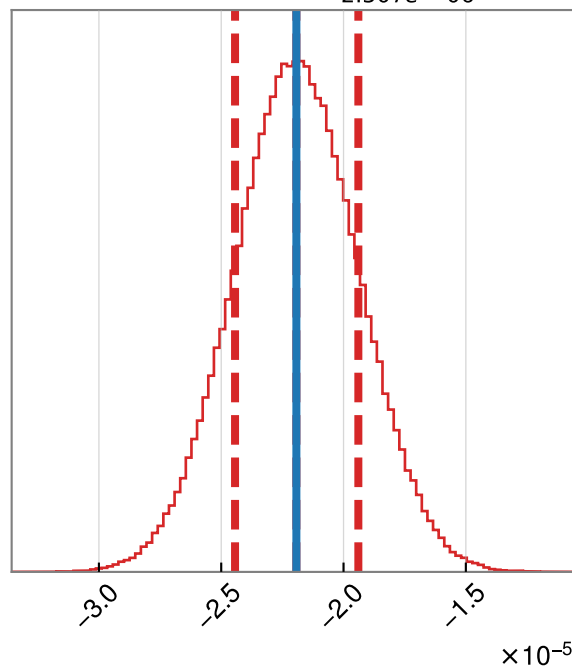
20230410T164221Z EX L1 actuation MCMC corner plot



$$H_A = 7.545e - 08^{+5.317e - 11}_{-5.272e - 11}$$

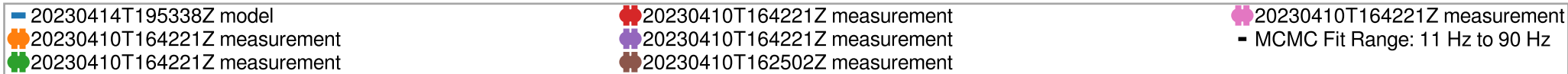


$$\Delta\tau_A = -2.193e - 05^{+2.533e - 06}_{-2.507e - 06}$$

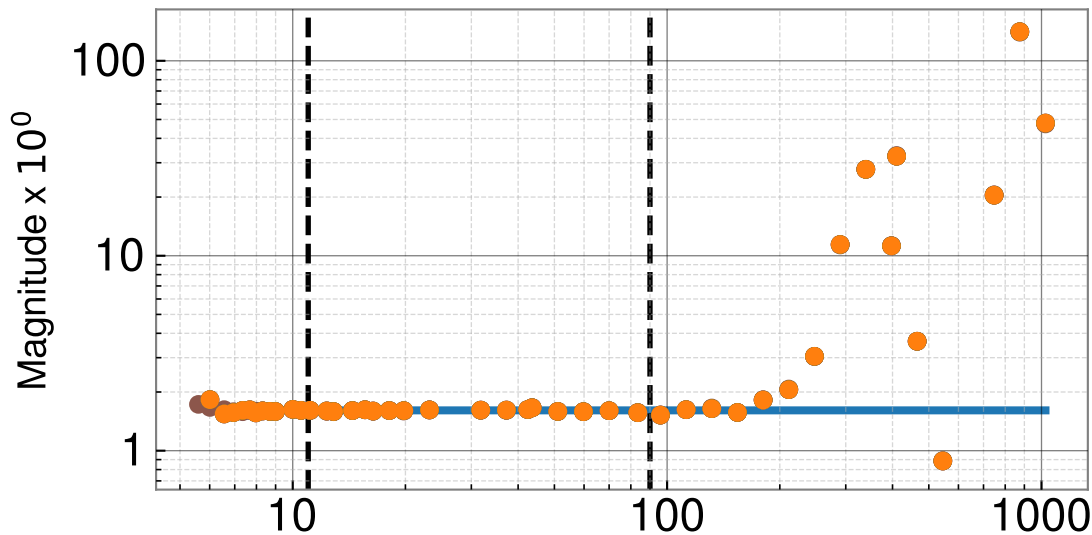


H1 SUSEX L1 actuation model history

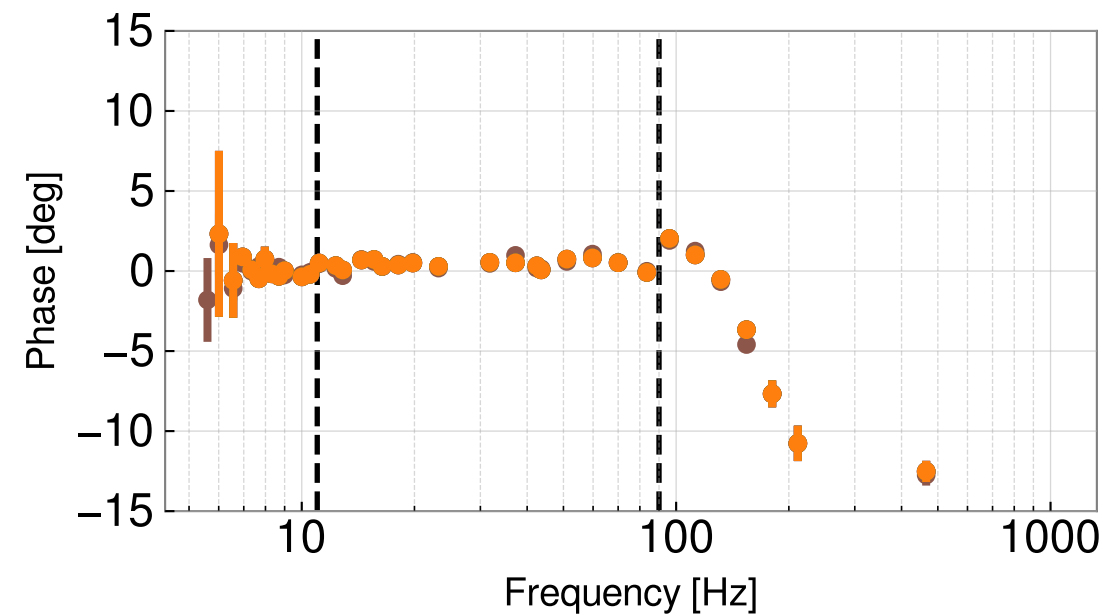
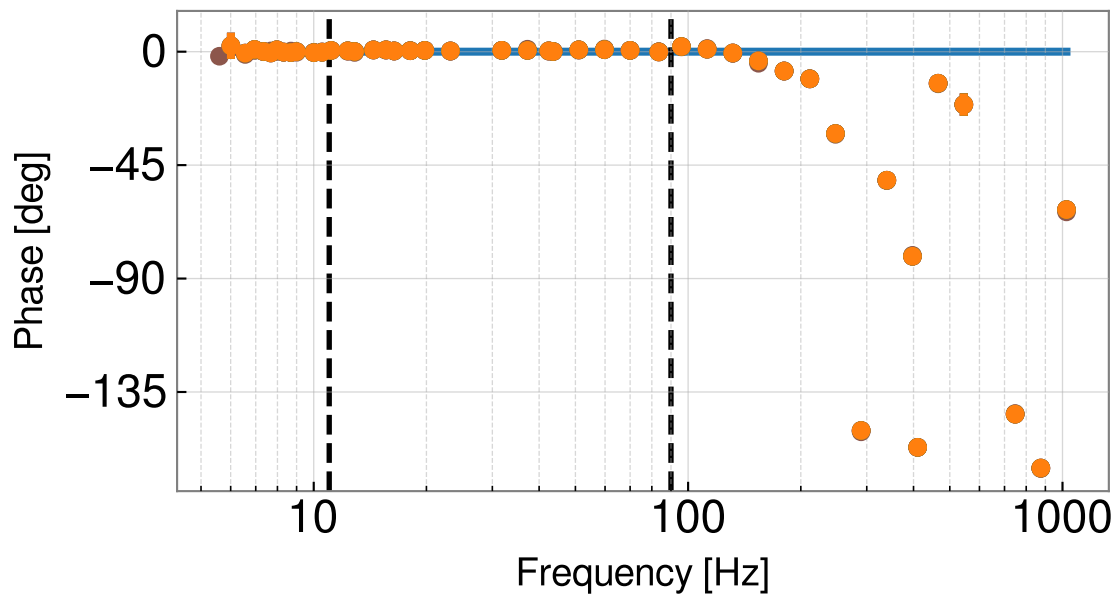
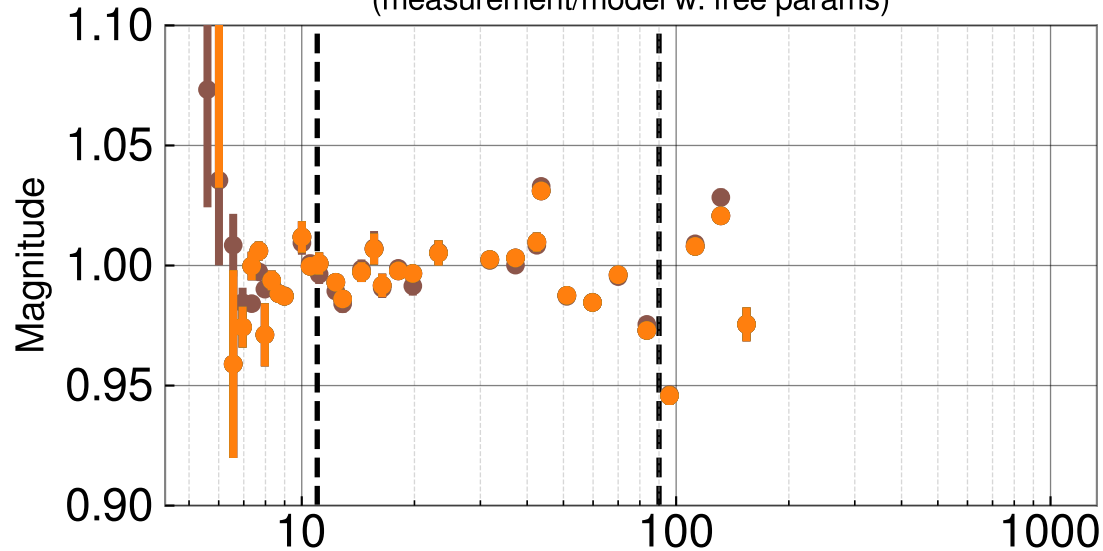
All fixed parameters drawn from /ligo/groups/cal/data/H1/reports/20230420T014029Z/pydarm_H1.ini



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

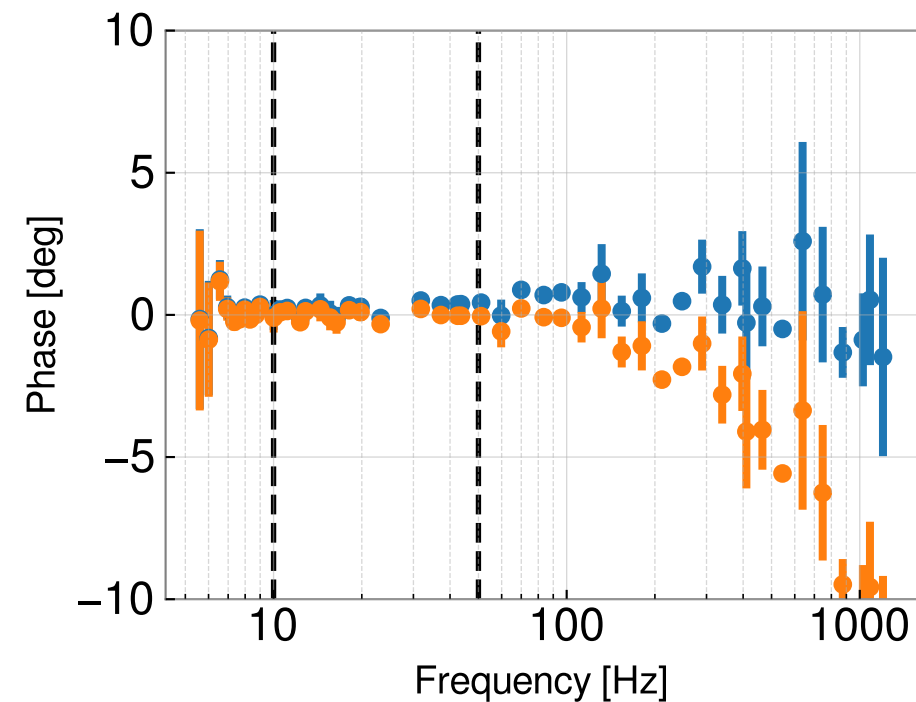
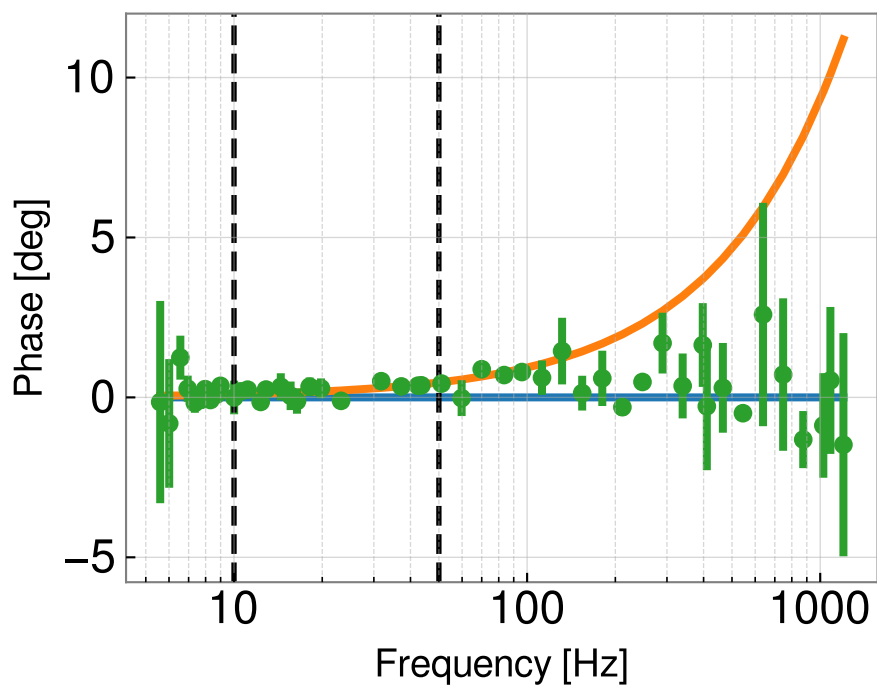
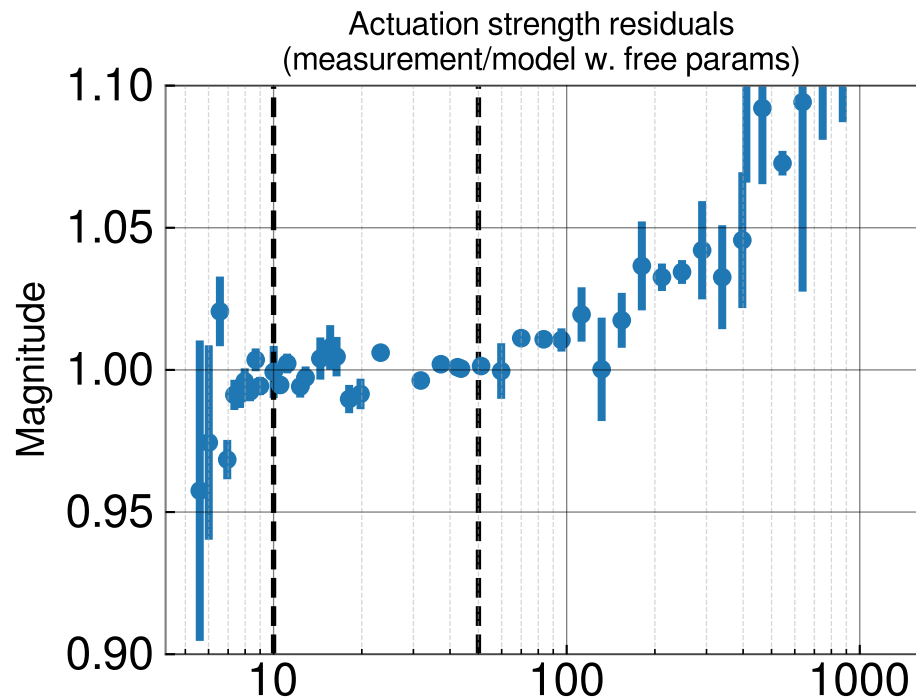
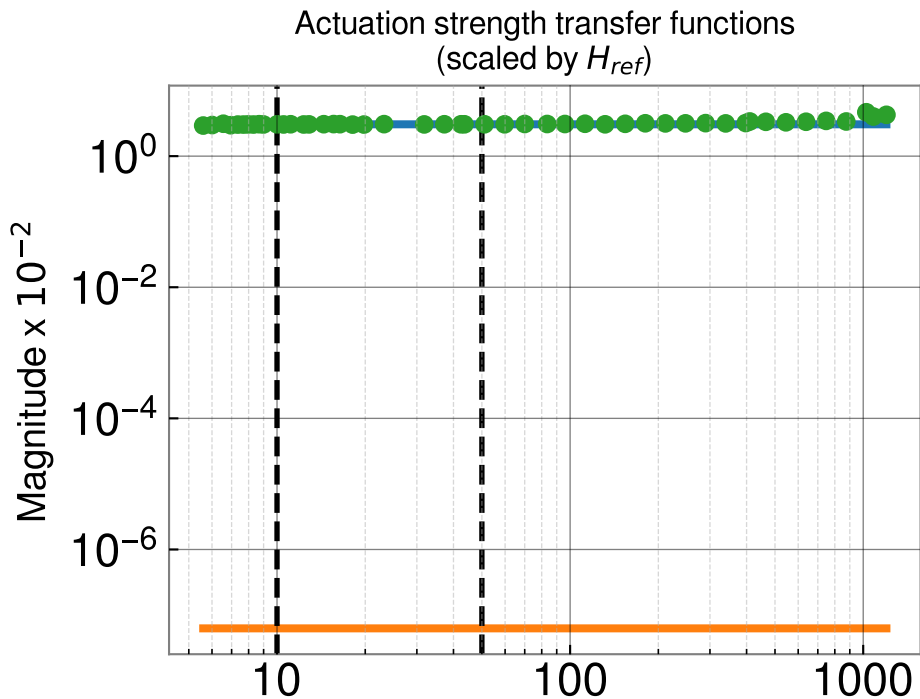
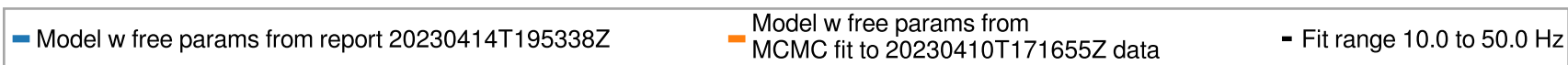


Actuation strength residuals
(measurement/model w. free params)



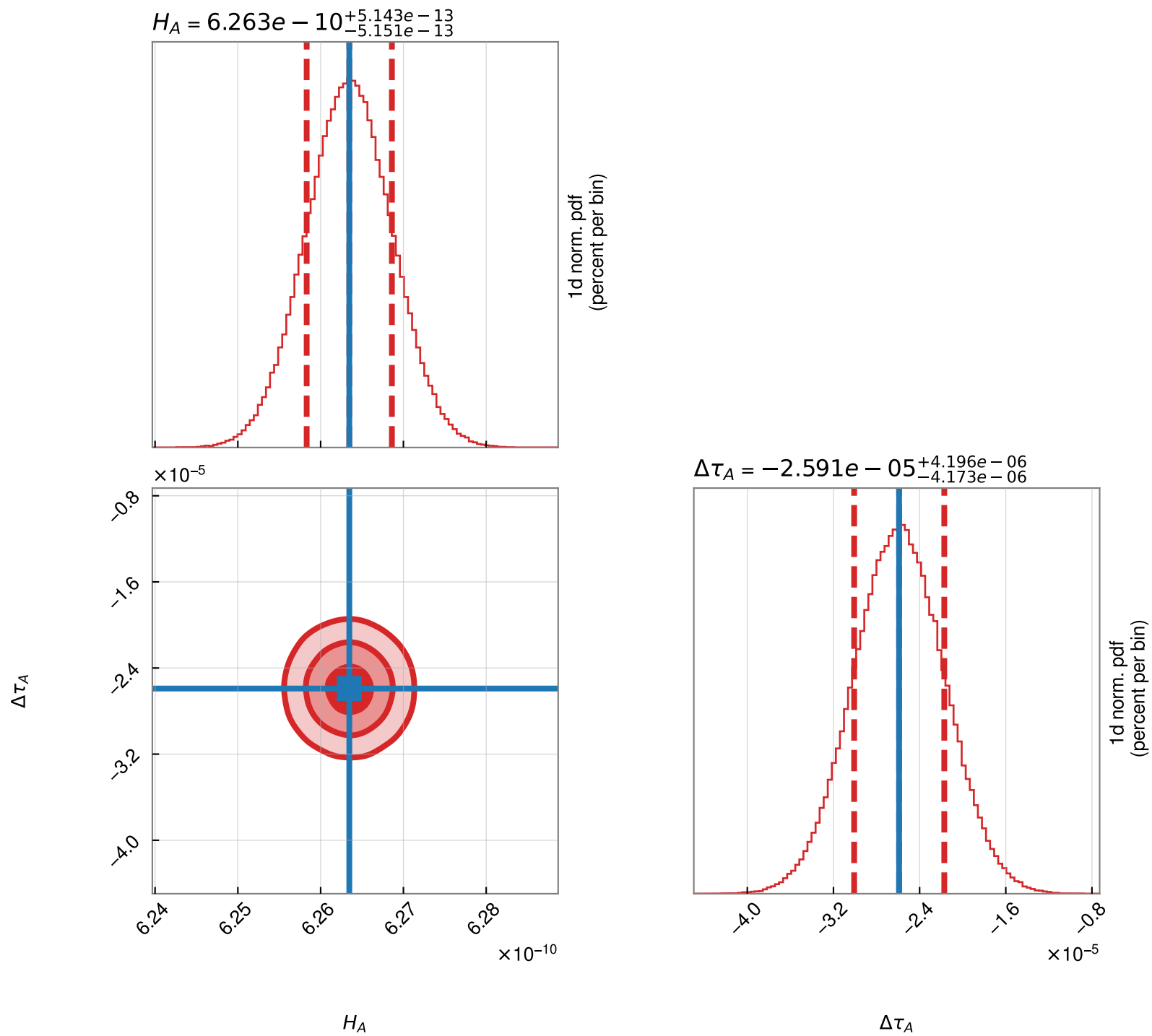
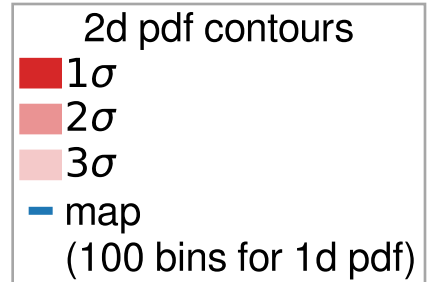
H1SUSEX L2 actuation model MCMC summary

All fixed parameters drawn from /ligo/groups/cal/data/H1/reports/20230420T014029Z/pydarm_H1.ini



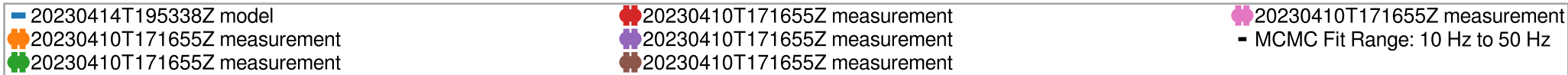
Parameter	(value +/-) value	+	-
Actuation Gain, Hap (N/A)	6.263e-10	5.143e-13 (0.08%)	5.151e-13 (0.08%)
Residual time delay, tau_a (s)	-2.591e-05	4.196e-06 (-16.20%)	4.173e-06 (-16.11%)

20230410T171655Z EX L2 actuation MCMC corner plot

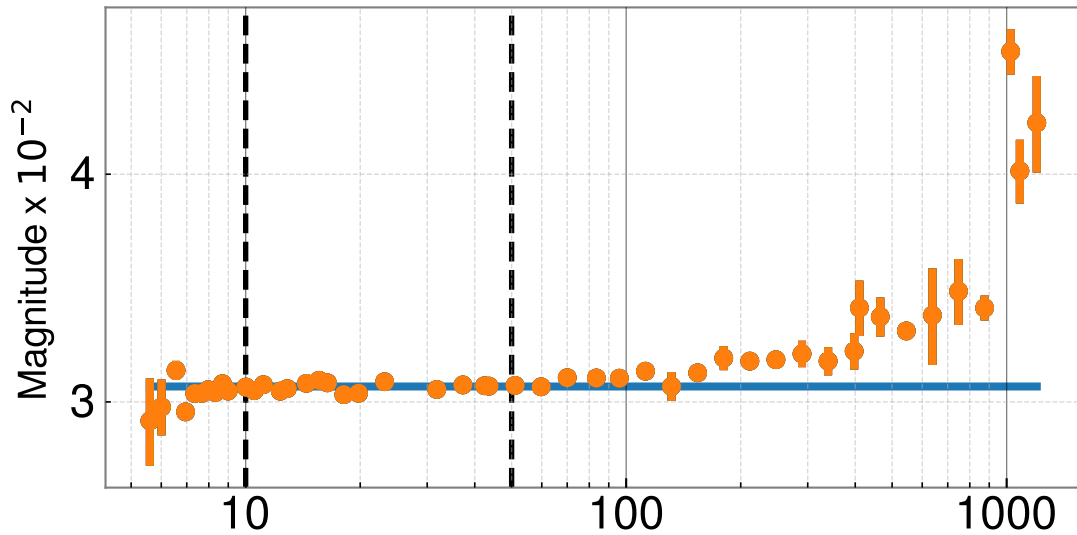


H1 SUSEX L2 actuation model history

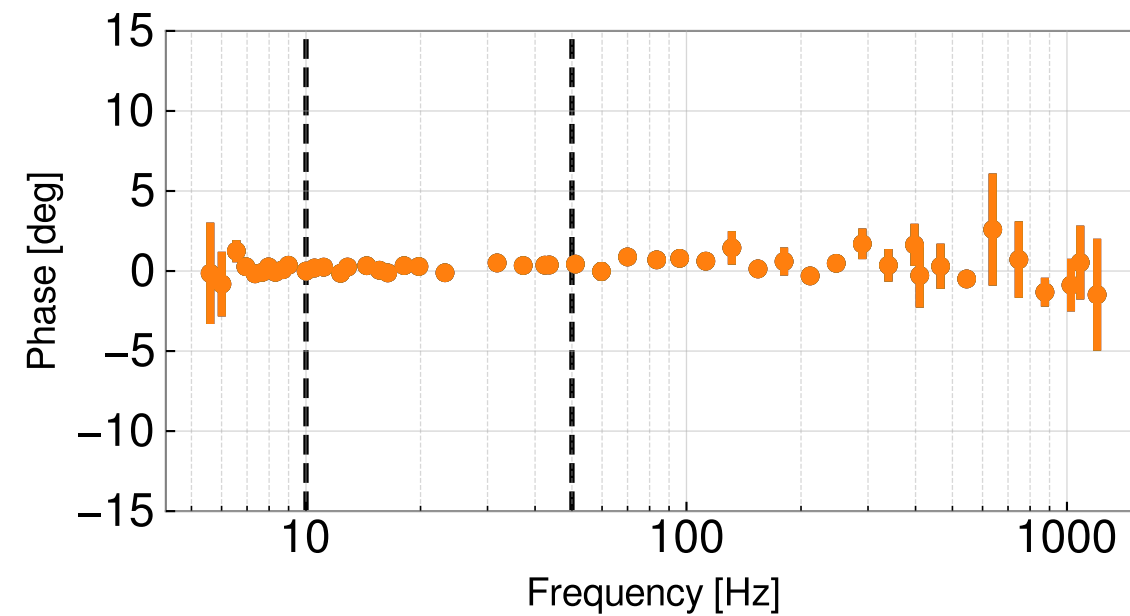
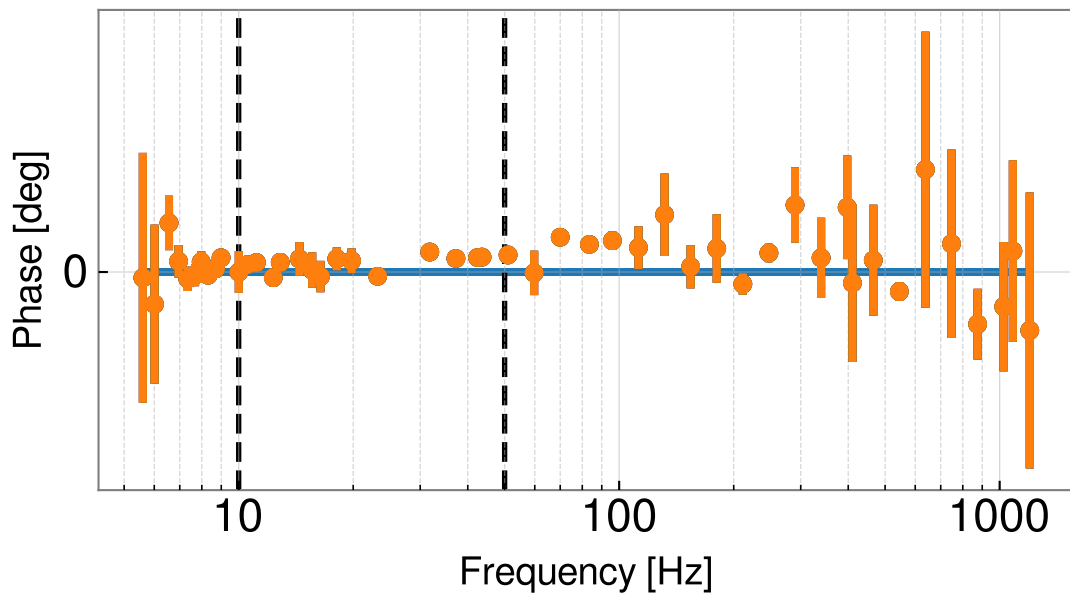
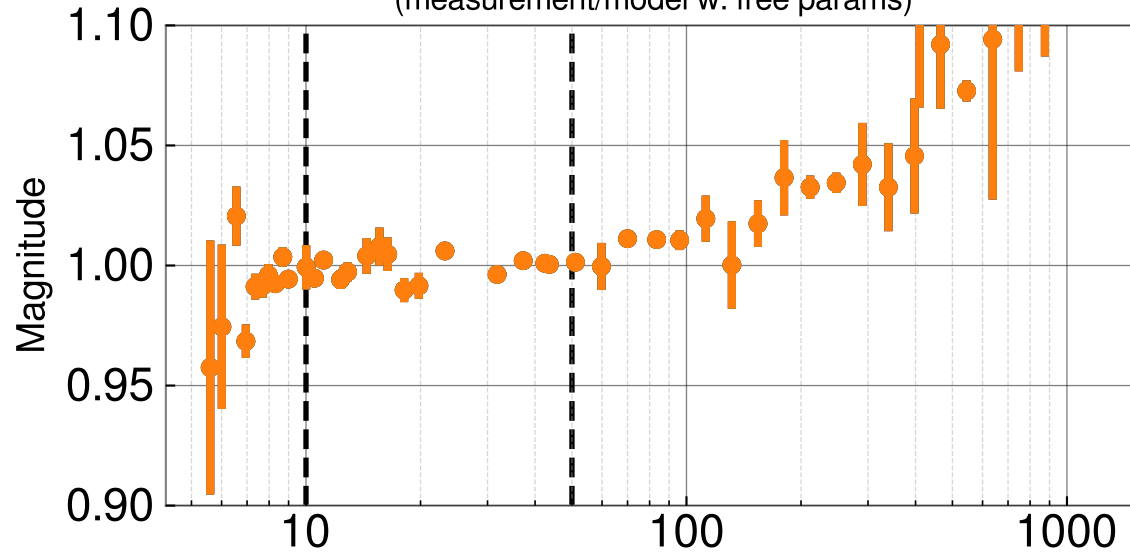
All fixed parameters drawn from /ligo/groups/cal/data/H1/reports/20230420T014029Z/pydarm_H1.ini



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



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

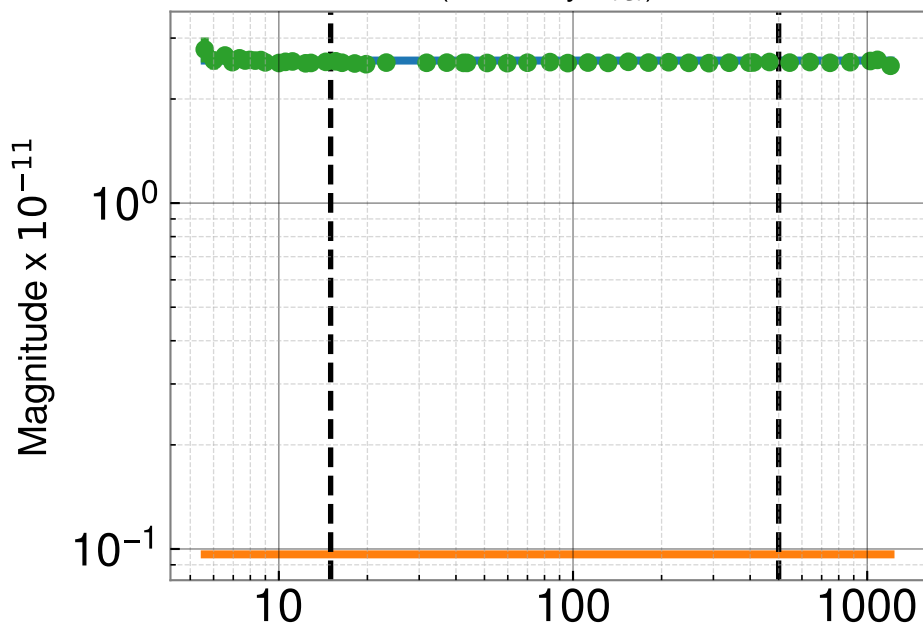


H1SUSEX L3 actuation model MCMC summary

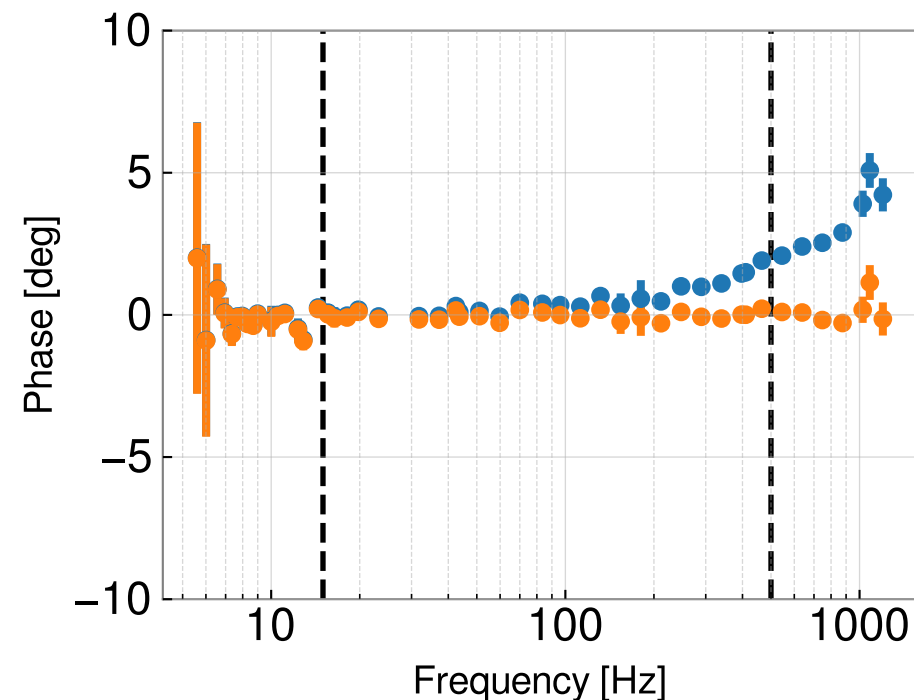
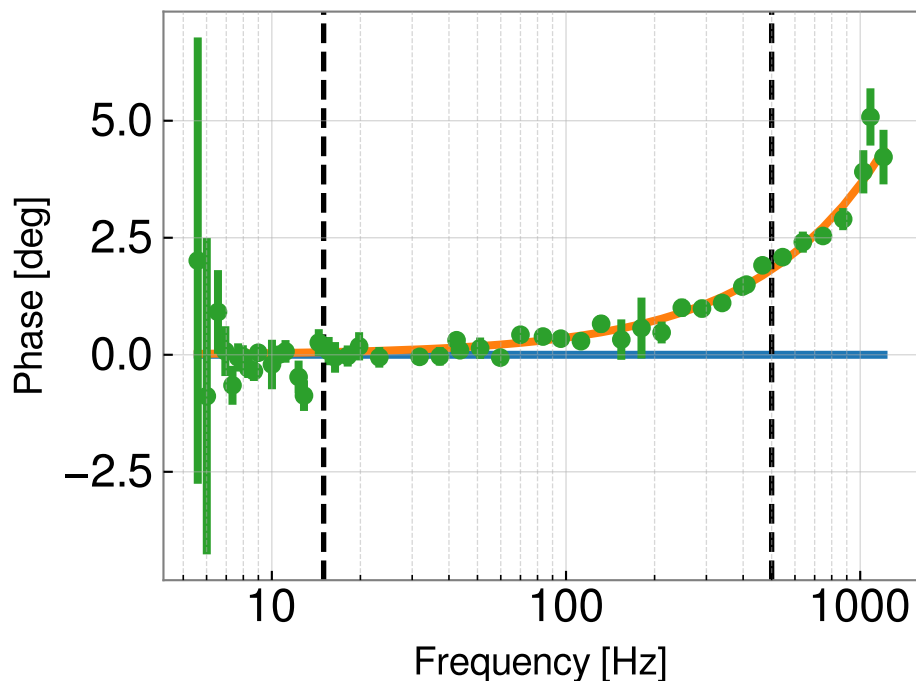
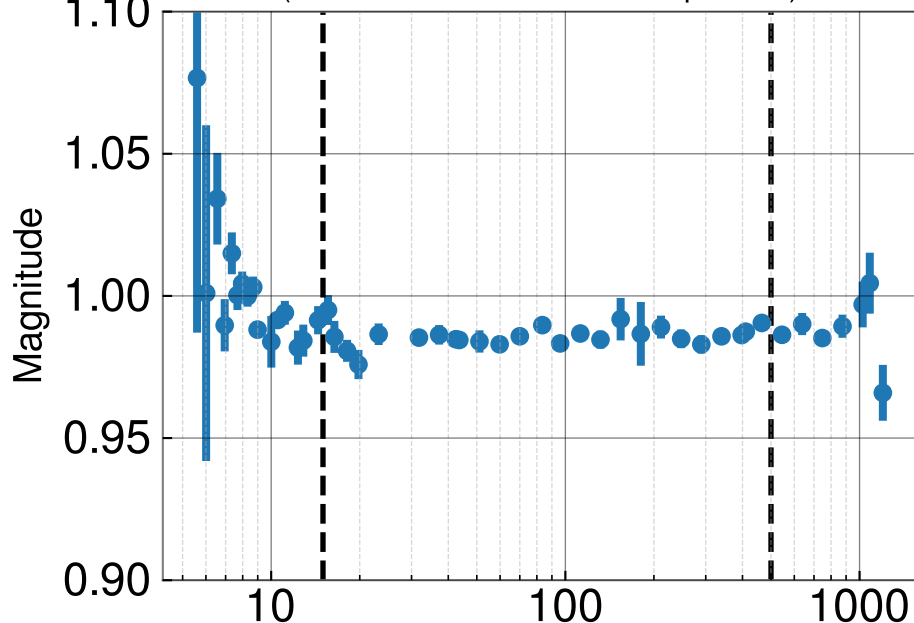
All fixed parameters drawn from /ligo/groups/cal/data/H1/reports/20230420T014029Z/pydarm_H1.ini

— Model w free params from report 20230414T195338Z
 — Model w free params from MCMC fit to 20230410T173412Z data
 - Fit range 15.0 to 500.0 Hz

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

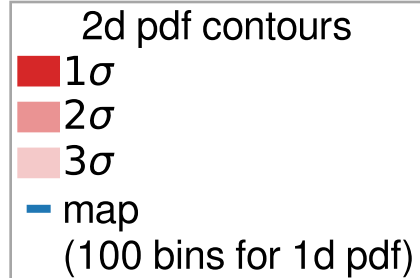


Actuation strength residuals
(measurement/model w. free params)

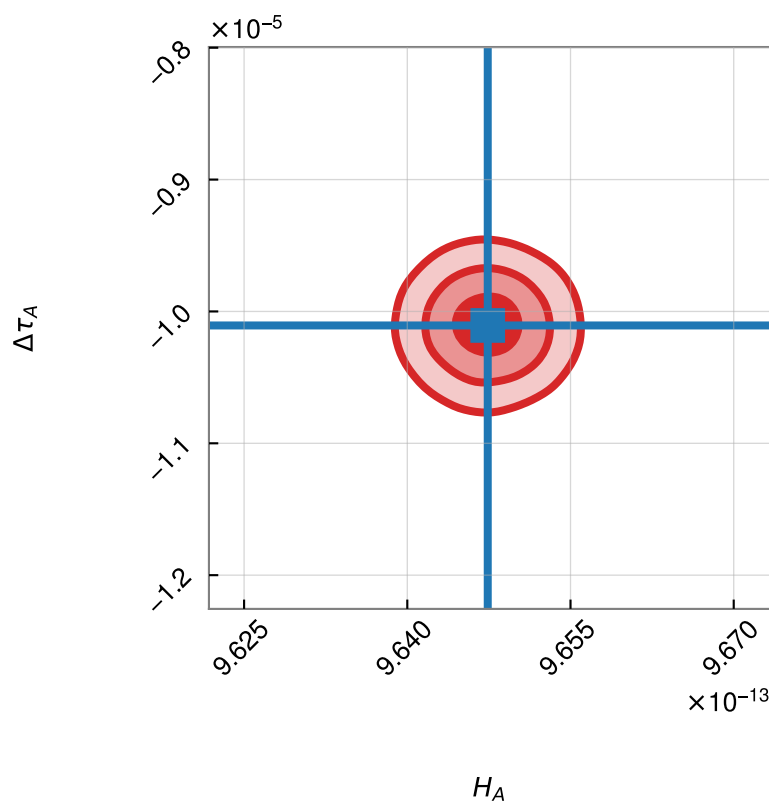
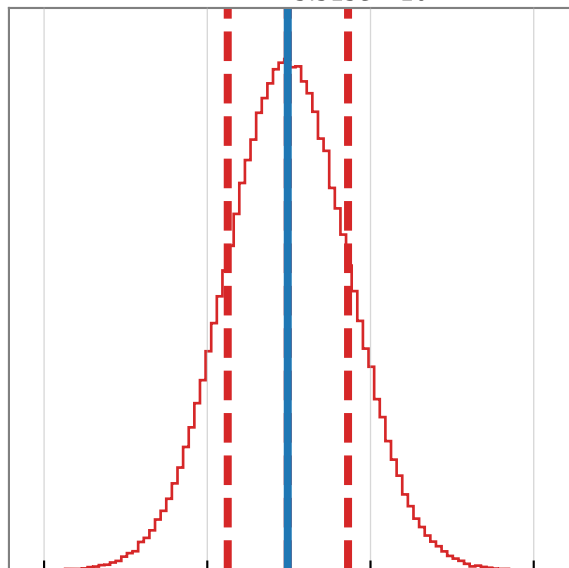


Parameter	(value +/-) value	+	-
Actuation Gain, Hat (N/V^{**2})	9.647e-13	5.543e-16 (0.06%)	5.515e-16 (0.06%)
Residual time delay, tau_a (s)	-1.011e-05	4.251e-07 (-4.21%)	4.265e-07 (-4.22%)

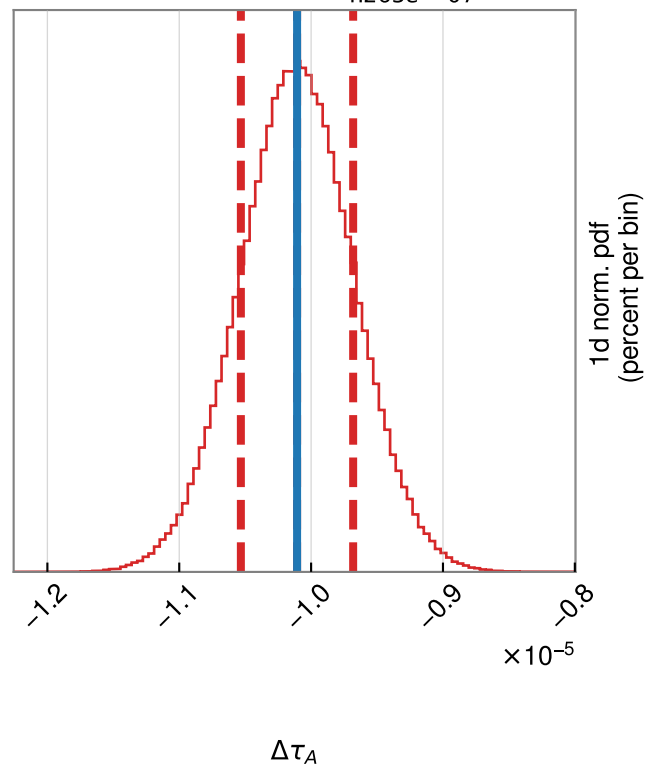
20230410T173412Z EX L3 actuation MCMC corner plot



$$H_A = 9.647e - 13^{+5.543e - 16}_{-5.515e - 16}$$

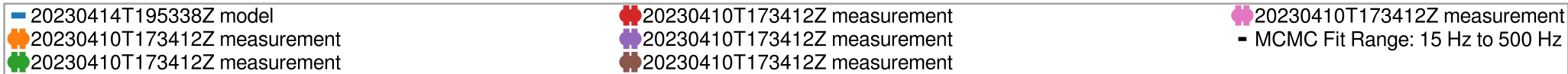


$$\Delta\tau_A = -1.011e - 05^{+4.251e - 07}_{-4.265e - 07}$$

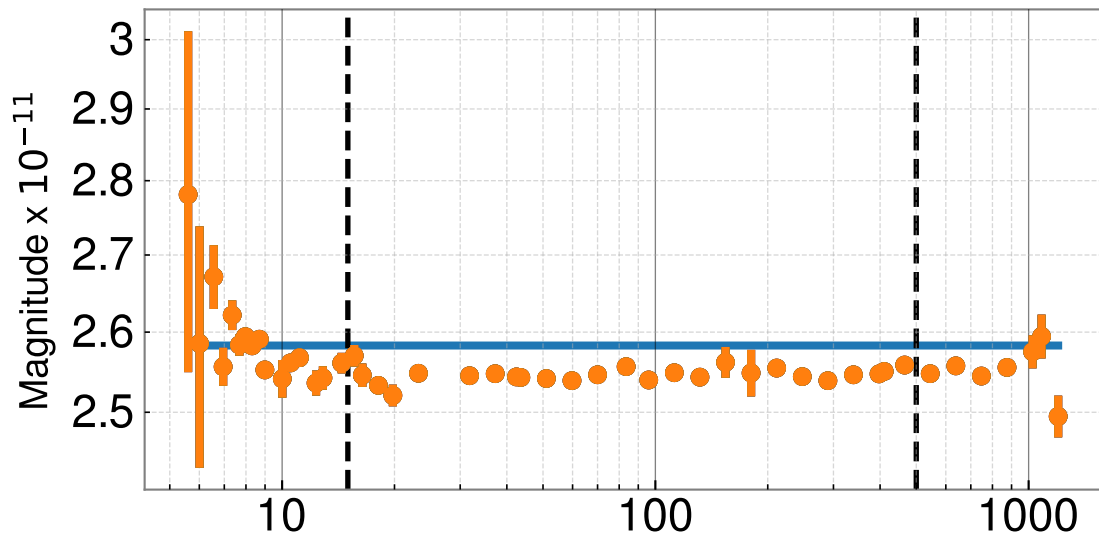


H1 SUSEX L3 actuation model history

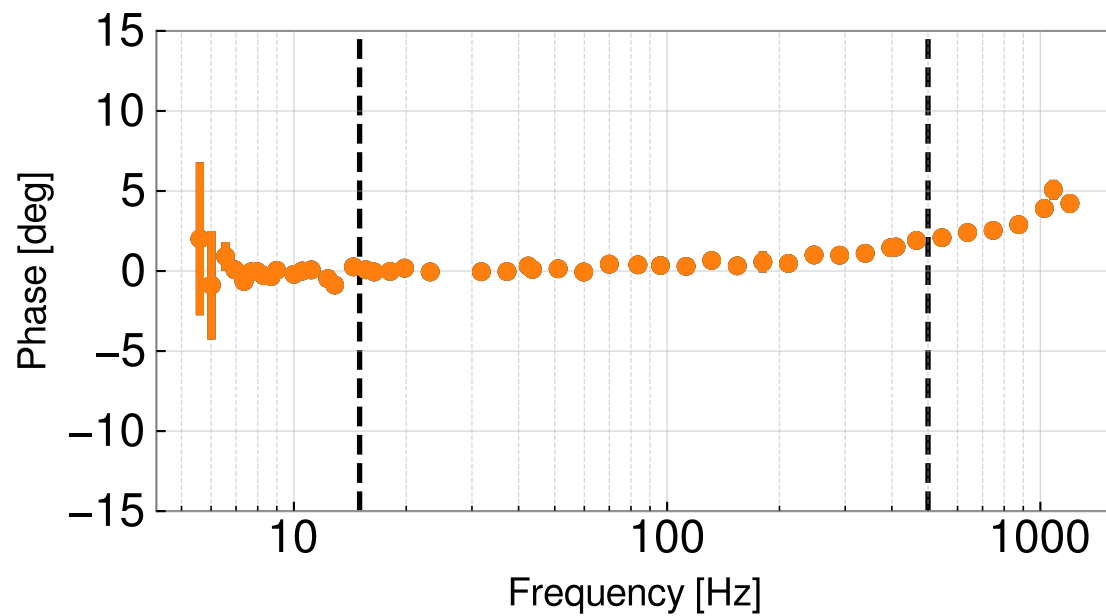
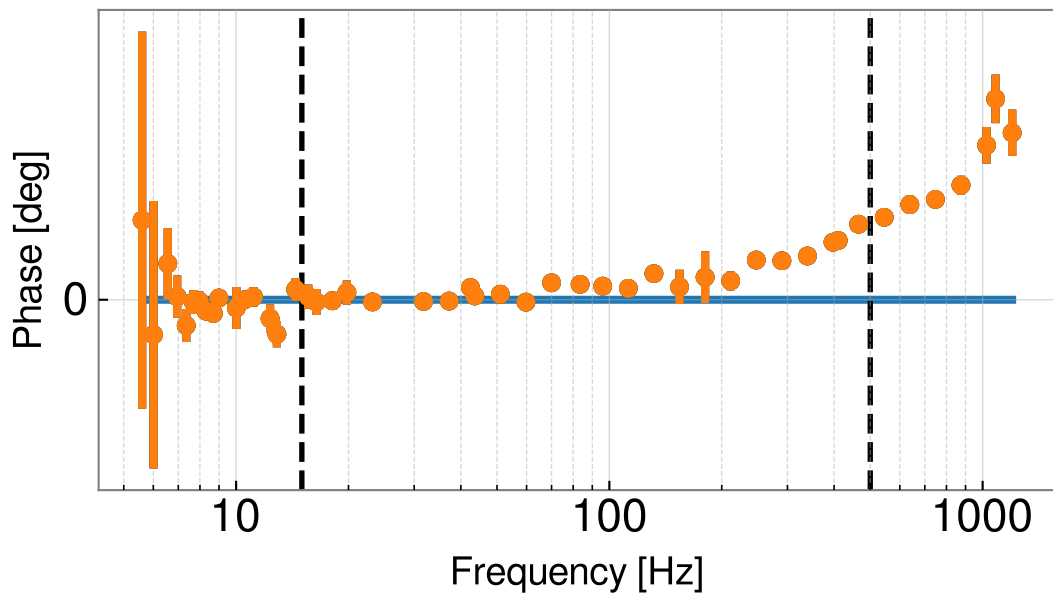
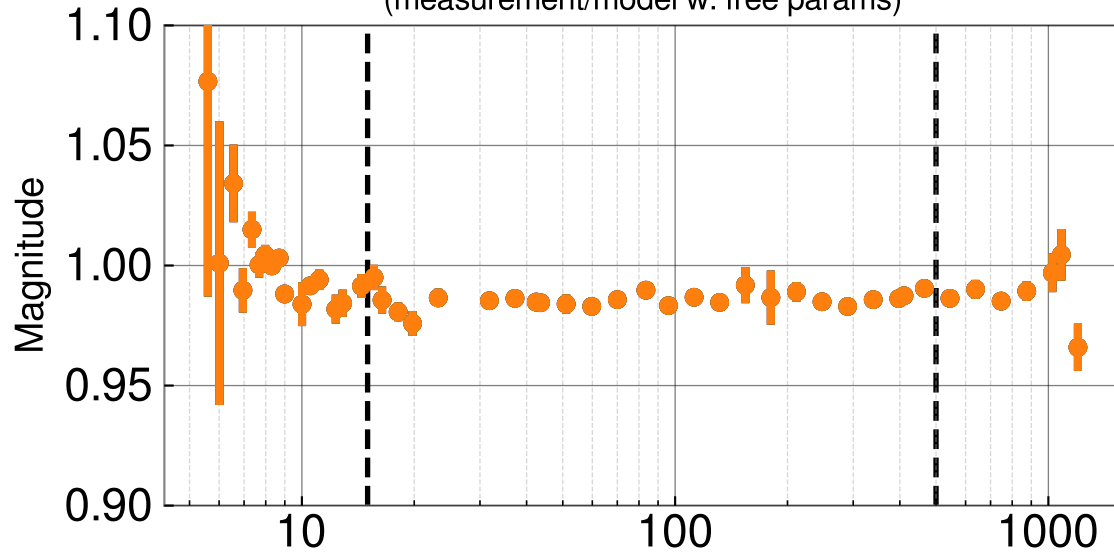
All fixed parameters drawn from /ligo/groups/cal/data/H1/reports/20230420T014029Z/pydarm_H1.ini



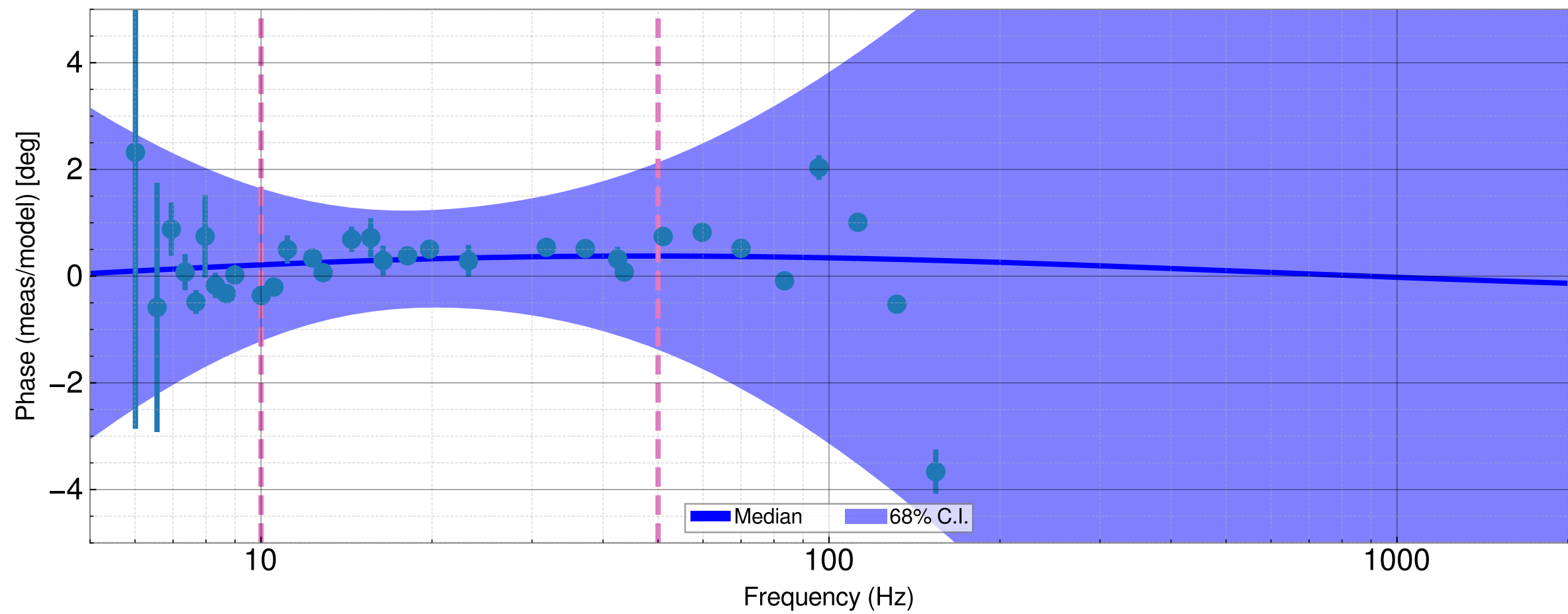
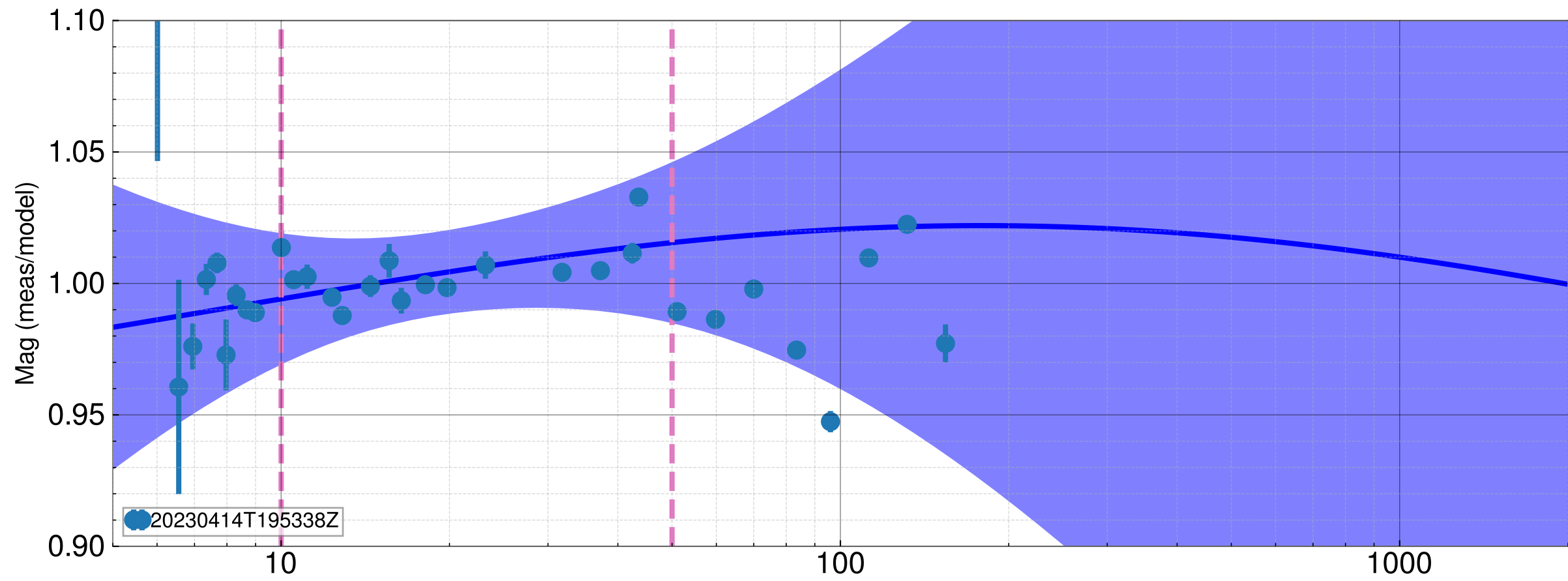
Actuation strength transfer functions
(scaled by H_{ref})



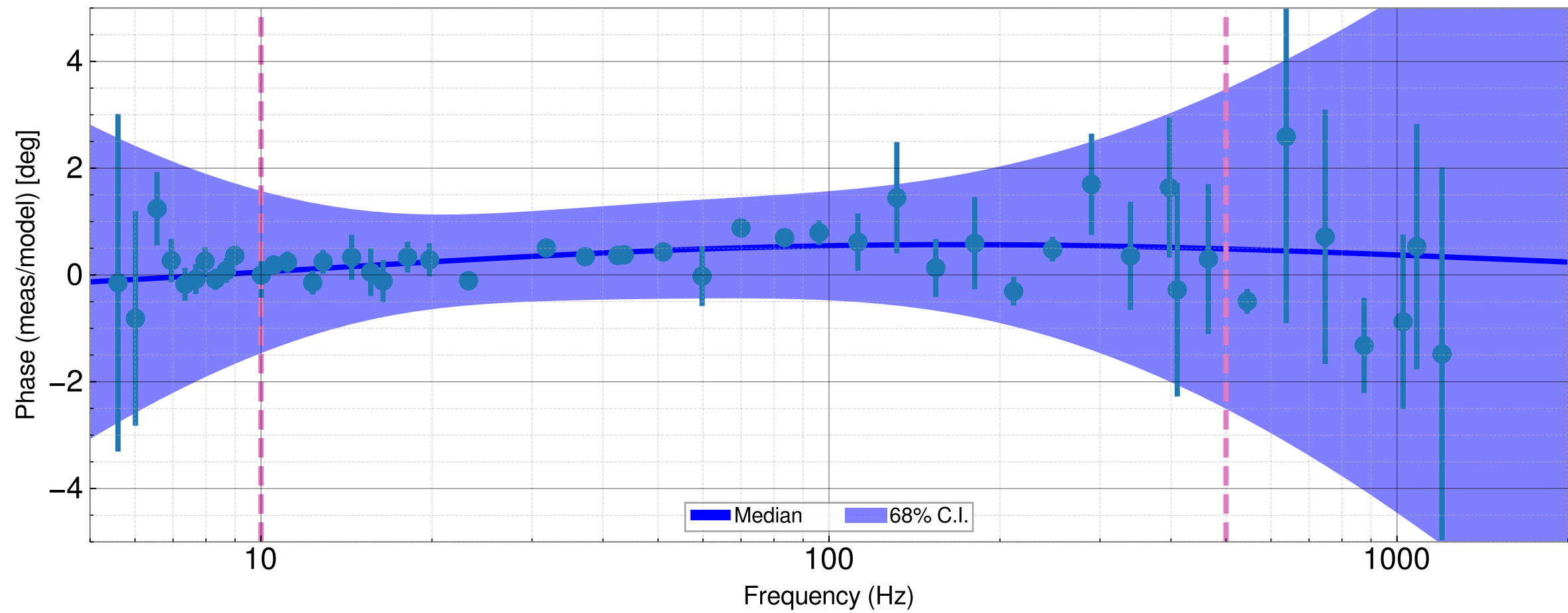
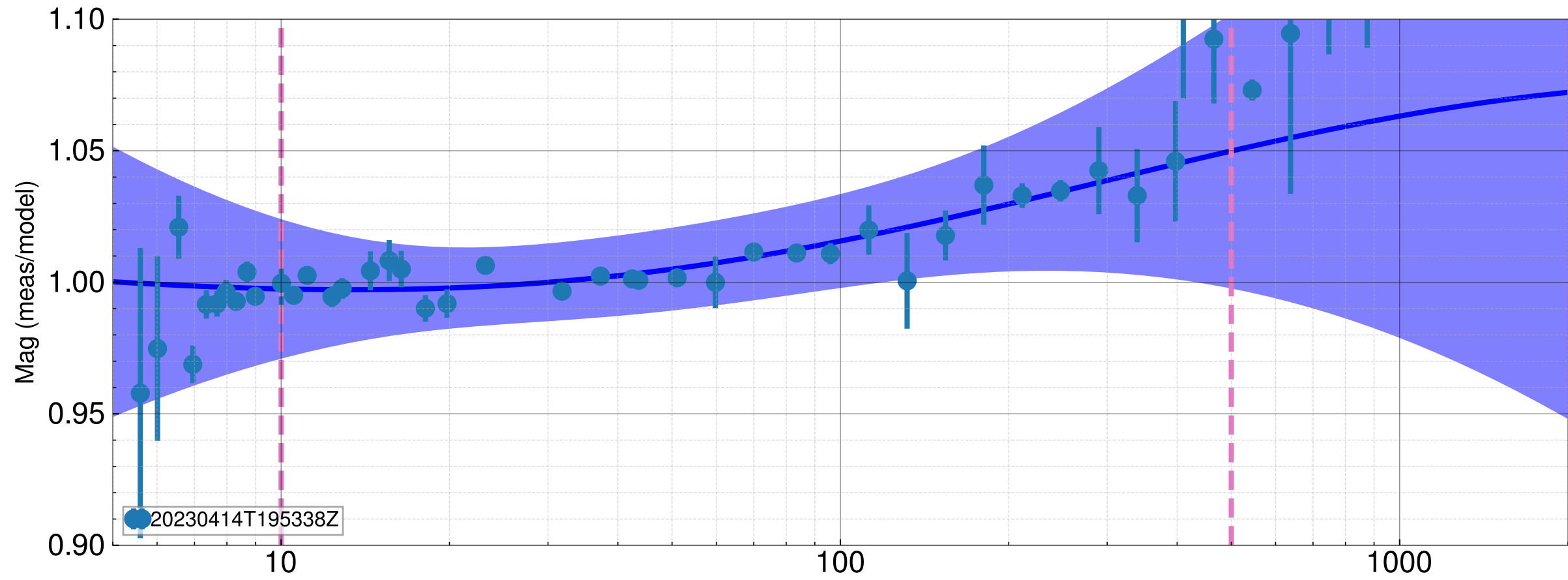
Actuation strength residuals
(measurement/model w. free params)



Actuation/L1/EX GPR



Actuation/L2/EX GPR



Actuation/L3/EX GPR

