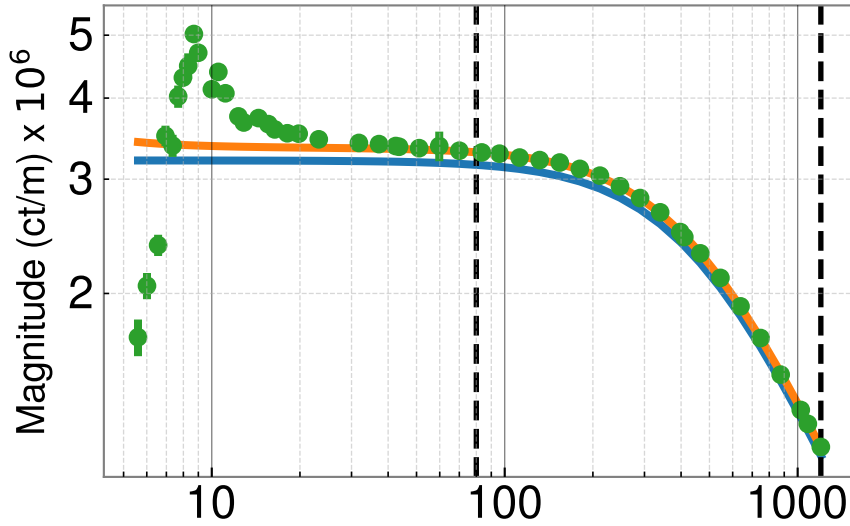


# H1 sensing model MCMC summary

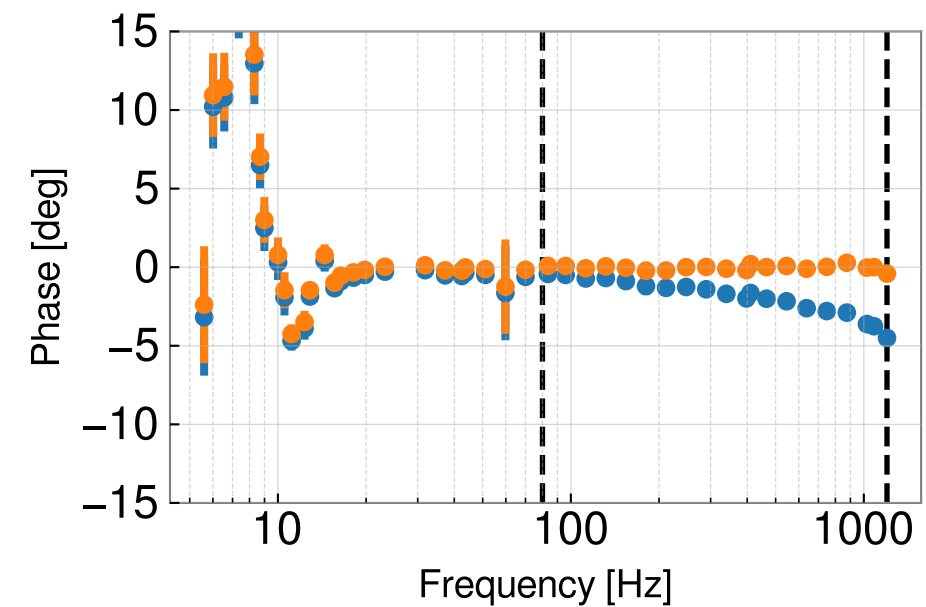
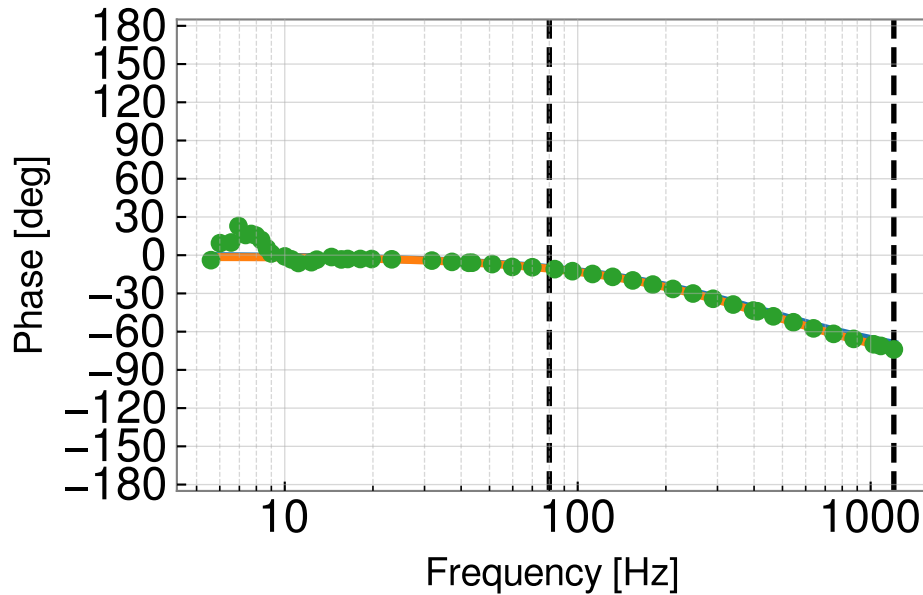
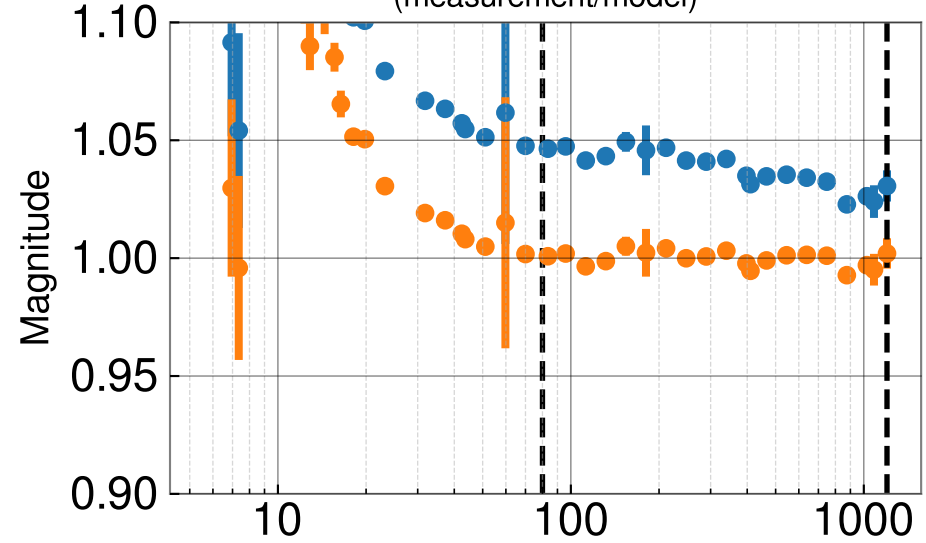
All fixed parameters are drawn from pydarm\_H1.ini



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

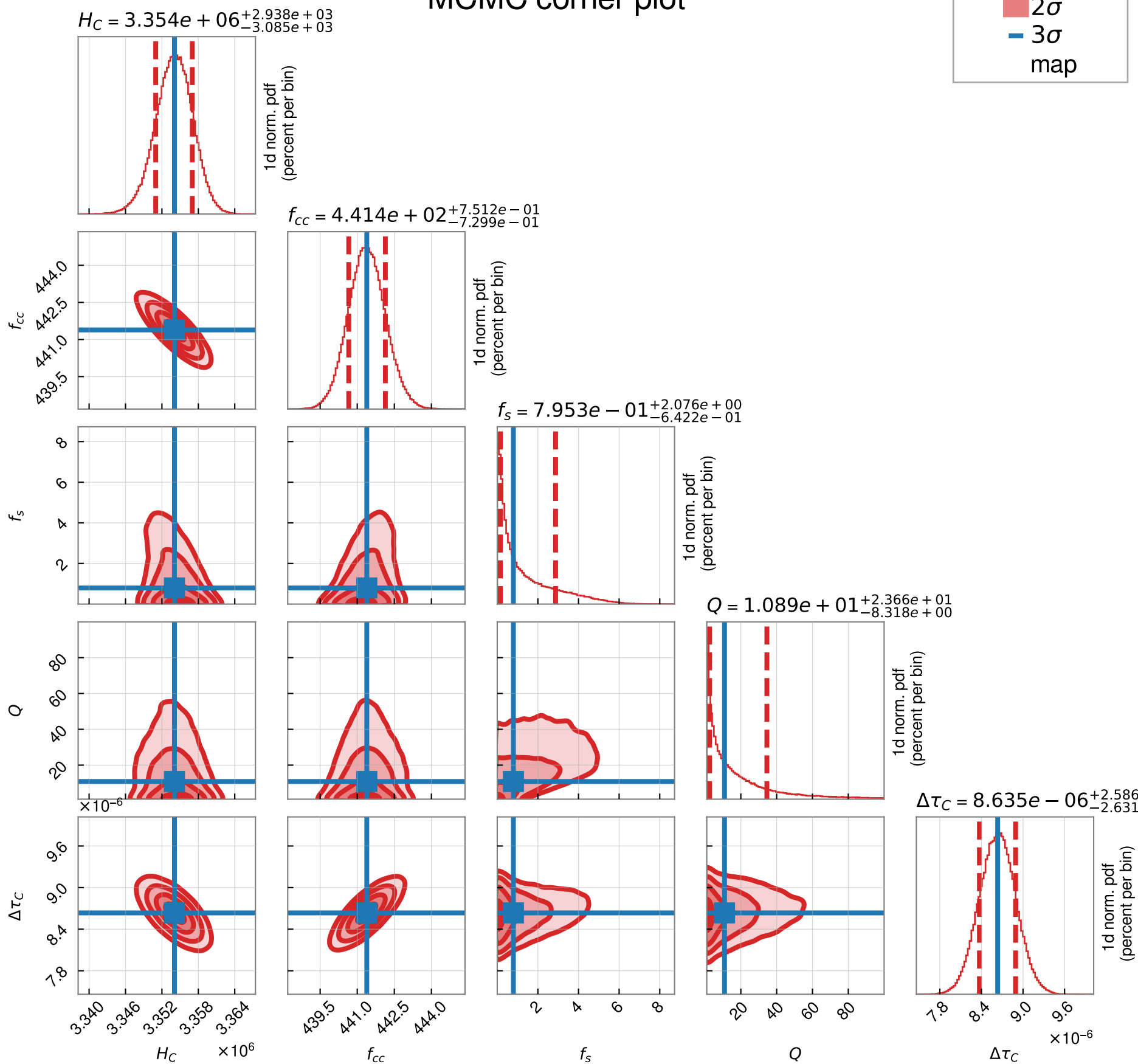
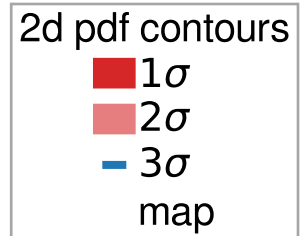


Optical response residuals  
(measurement/model)



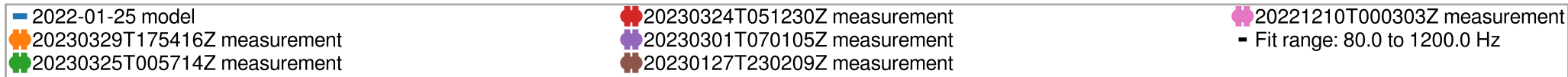
Parameter	(value +/-)   value	+	-
Optical gain, H_c (ct/m)	3.354e+06	2938 (0.09%)	3085 (0.09%)
Cavity_pole, f_cc (Hz)	441.4	0.7512 (0.17%)	0.7299 (0.17%)
Detuned SRC spring frequency, f_s (Hz)	0.7953	2.076 (261.00%)	0.6422 (80.74%)
Detuned SRC spring quality factor, Q_s	10.89	23.66 (217.35%)	8.318 (76.41%)
Residual time delay, tau_c (s)	8.635e-06	2.586e-07 (3.00%)	2.631e-07 (3.05%)
kappa_c	1.046	0.0009165 (0.09%)	0.0009623 (0.09%)

# 20230329T181143Z sensing function MCMC corner plot

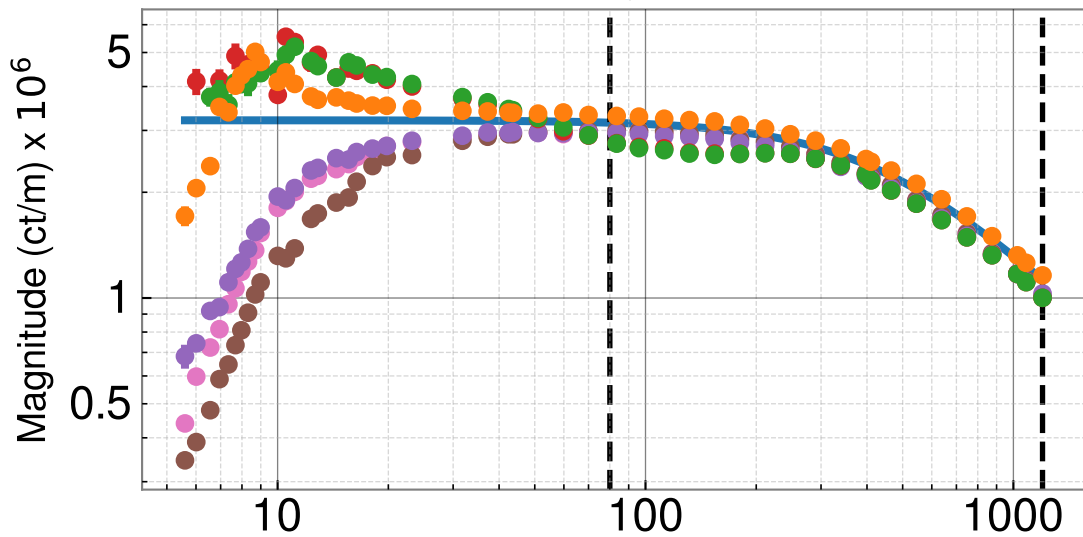


# H1 sensing model history

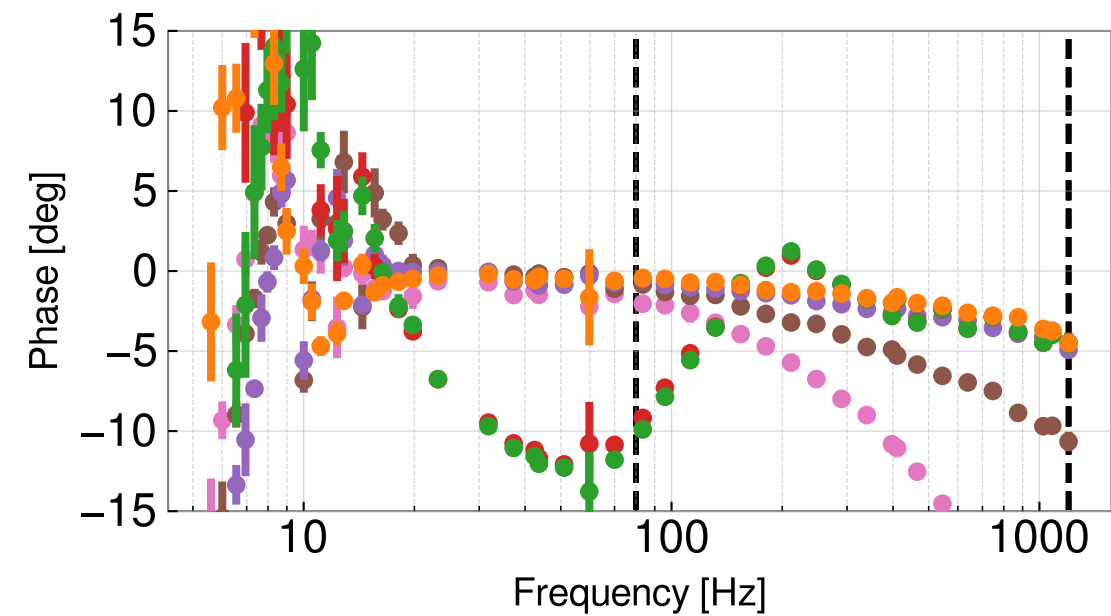
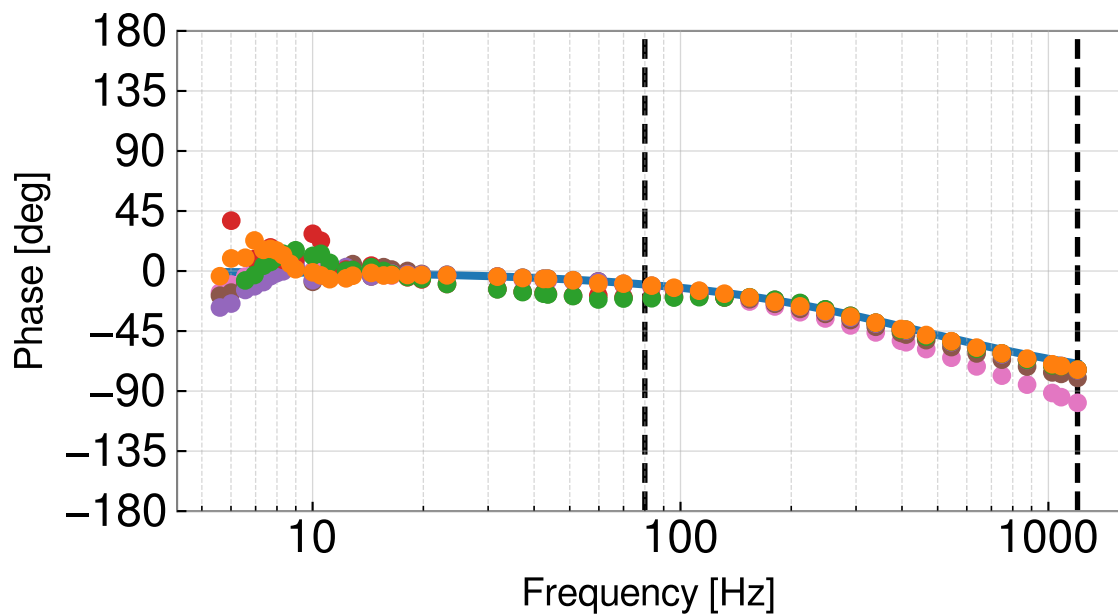
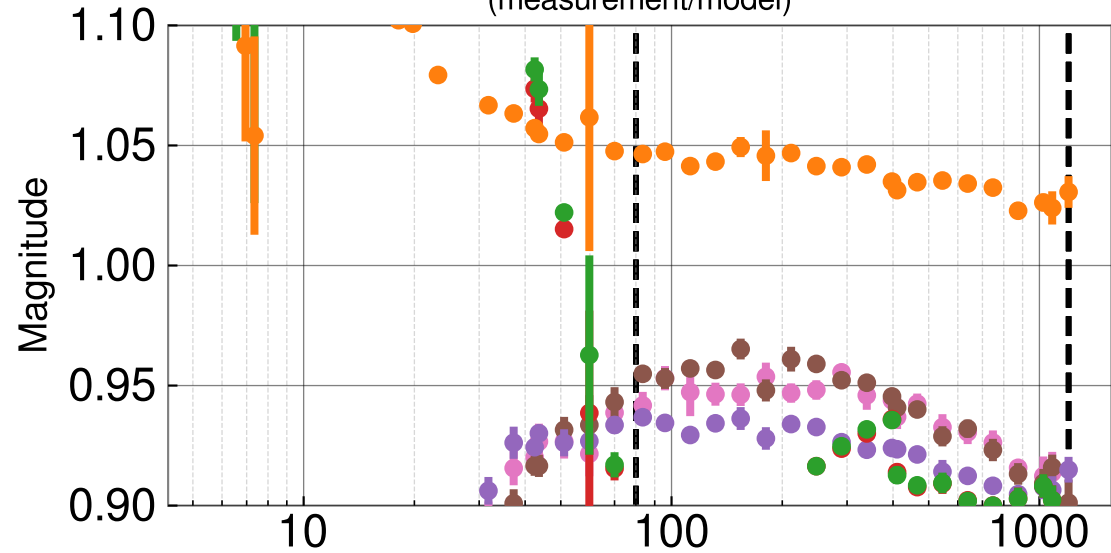
All fixed parameters are drawn from pydarm\_H1.ini



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

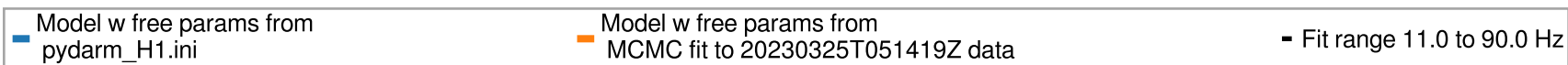


Optical response residuals  
(measurement/model)

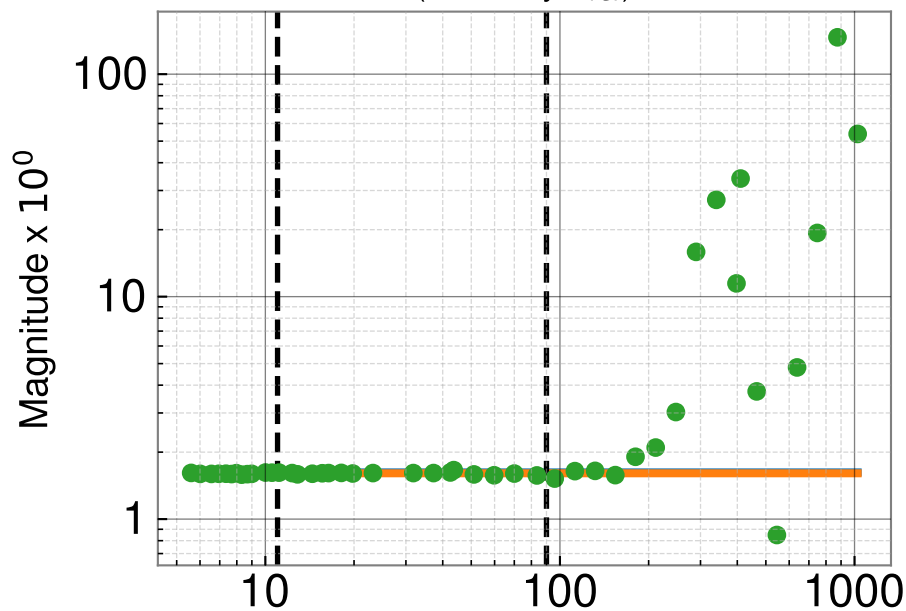


# H1SUSEX L1 actuation model MCMC summary

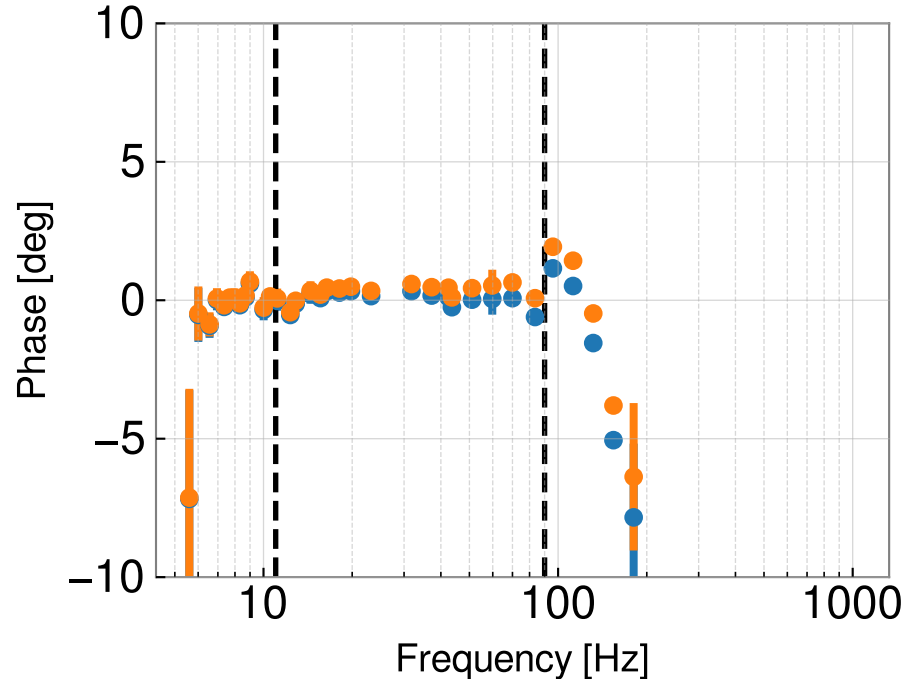
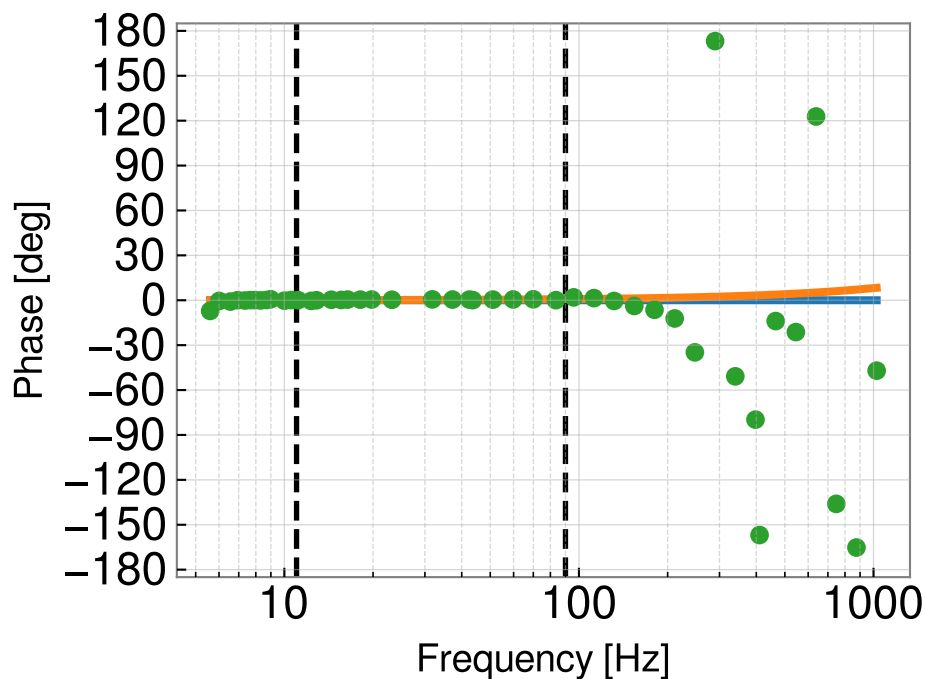
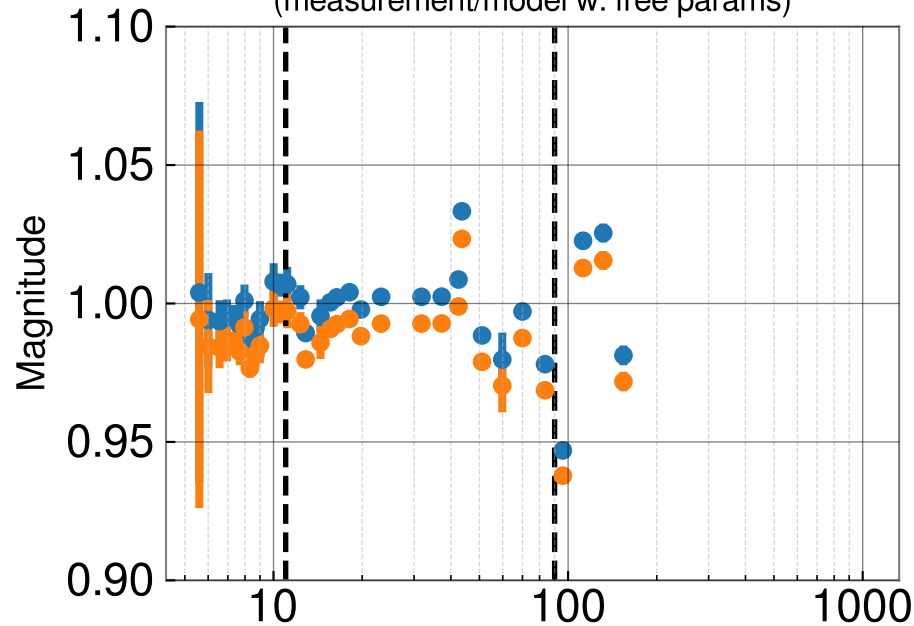
All fixed parameters are drawn from pydarm\_H1.ini



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

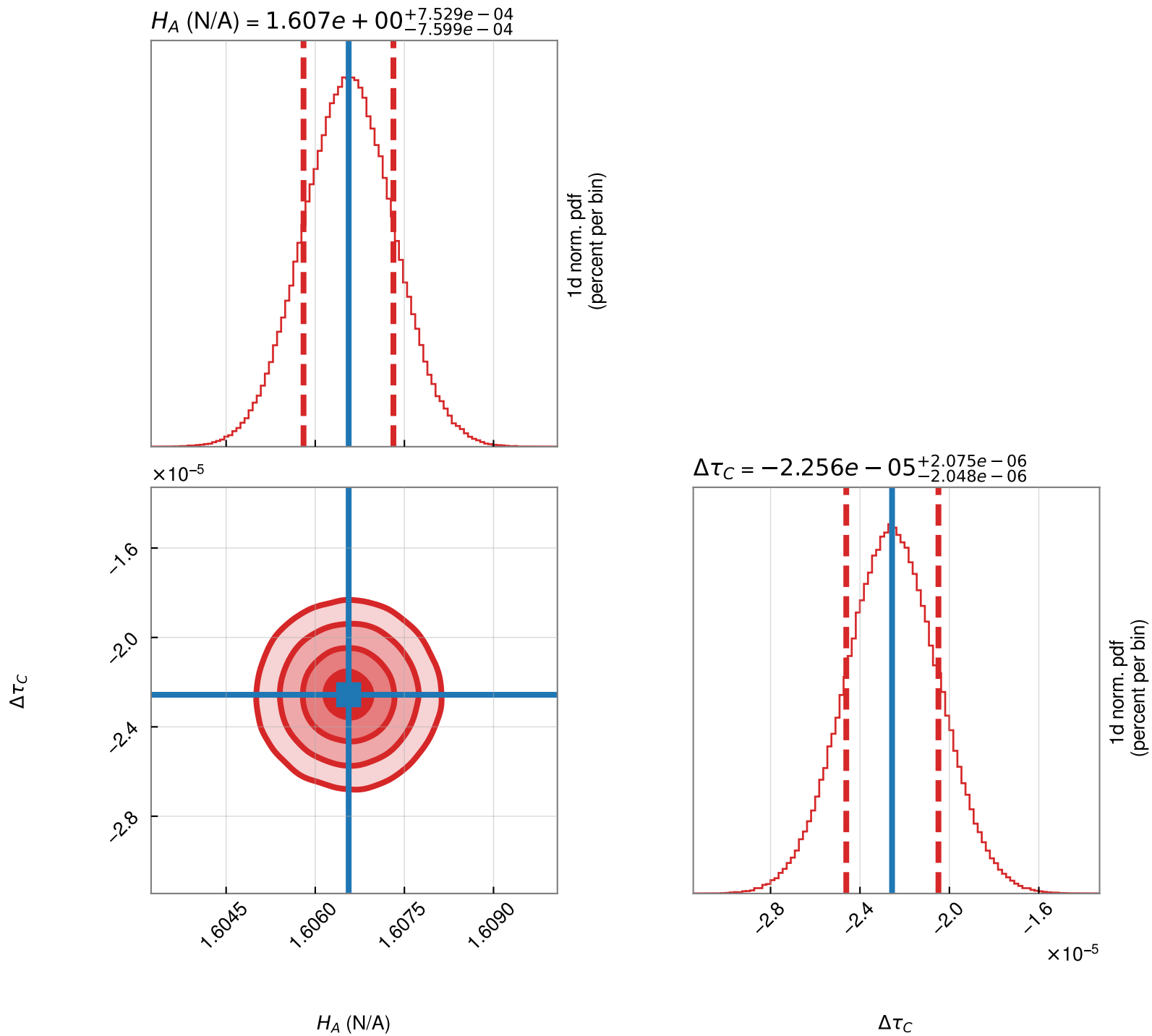
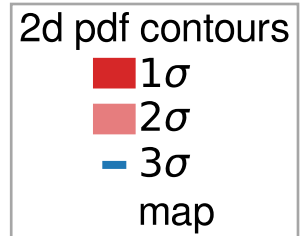


Actuation strength residuals  
(measurement/model w. free params)



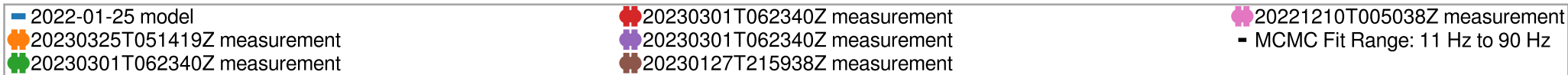
Parameter	(value +/-)   value	+	-
Gain, H_A (N/A)	1.607	0.0007529 (0.05%)	0.0007599 (0.05%)
Residual time delay, tau_c (s)	-2.256e-05	2.075e-06 (-9.19%)	2.048e-06 (-9.08%)
Gain, H_A (N/ct)	7.542e-08	3.535e-11 (0.05%)	3.567e-11 (0.05%)

# 20230325T051419Z L1 actuation function MCMC corner plot

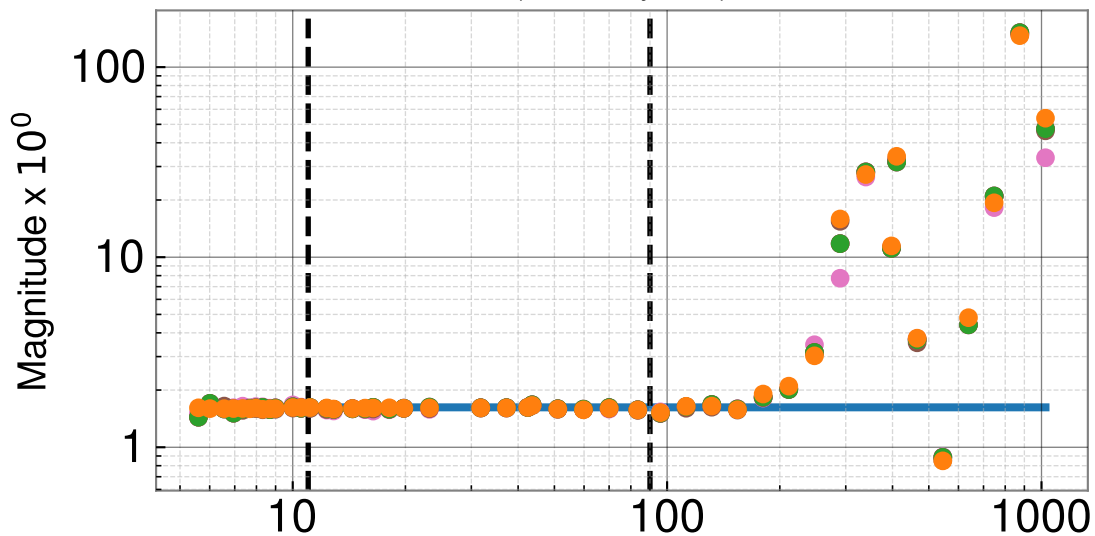


# H1 SUSEX L1 actuation model history

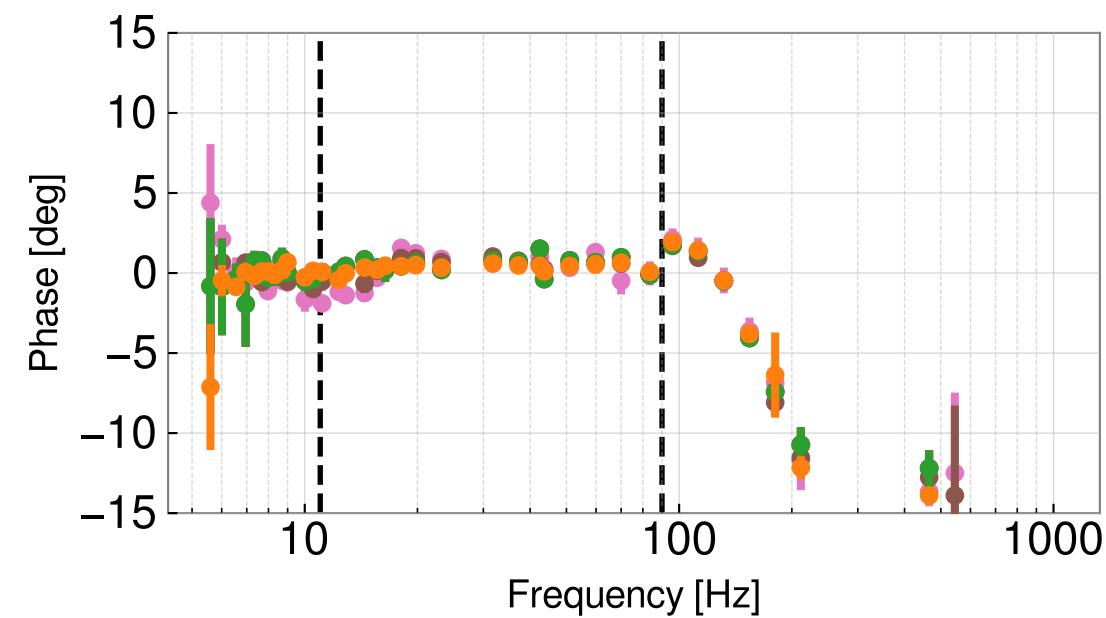
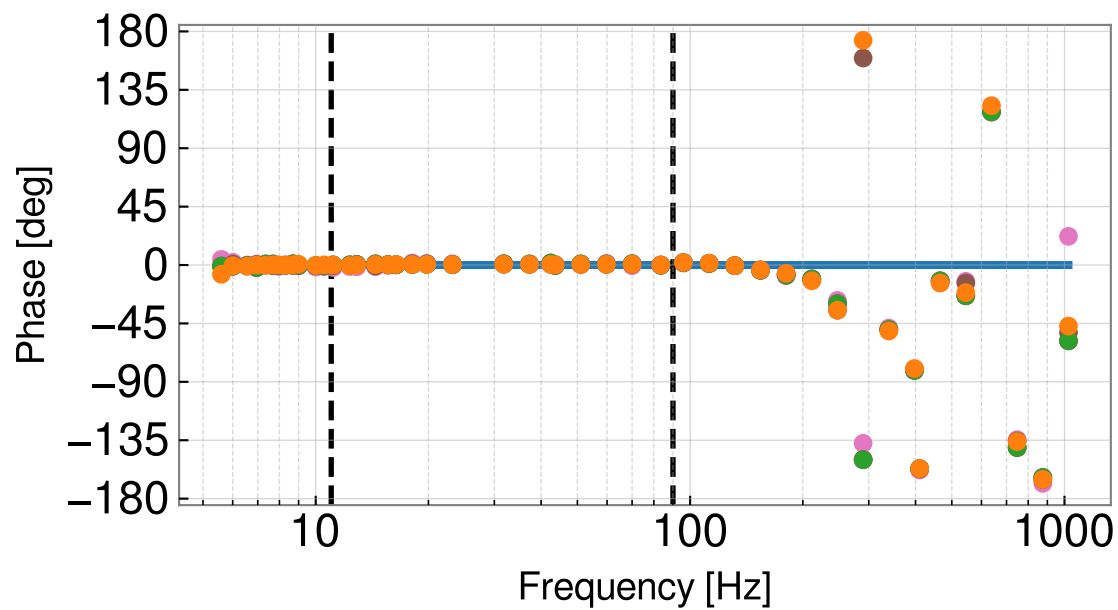
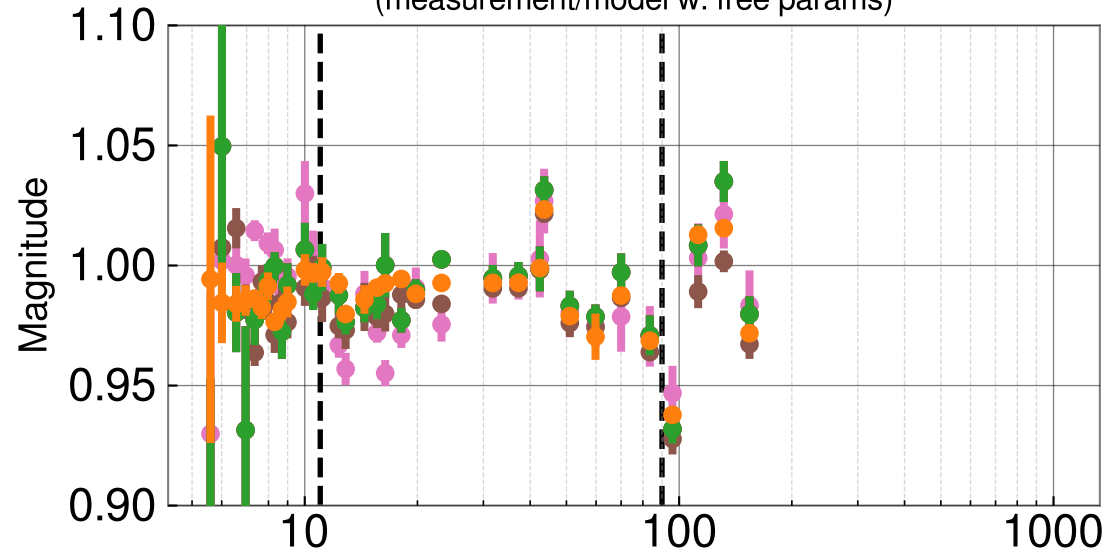
All fixed parameters are drawn from pydarm\_H1.ini



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



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

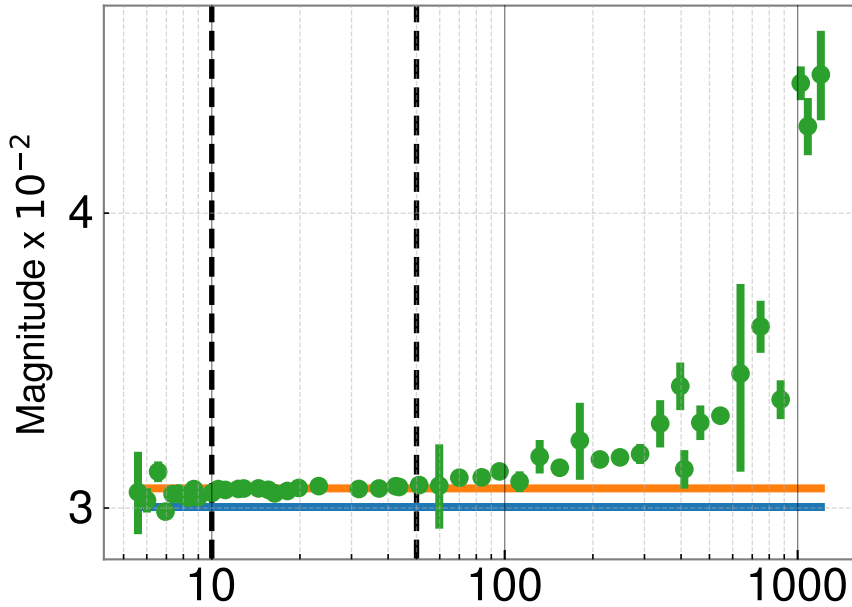


# H1SUSEX L2 actuation model MCMC summary

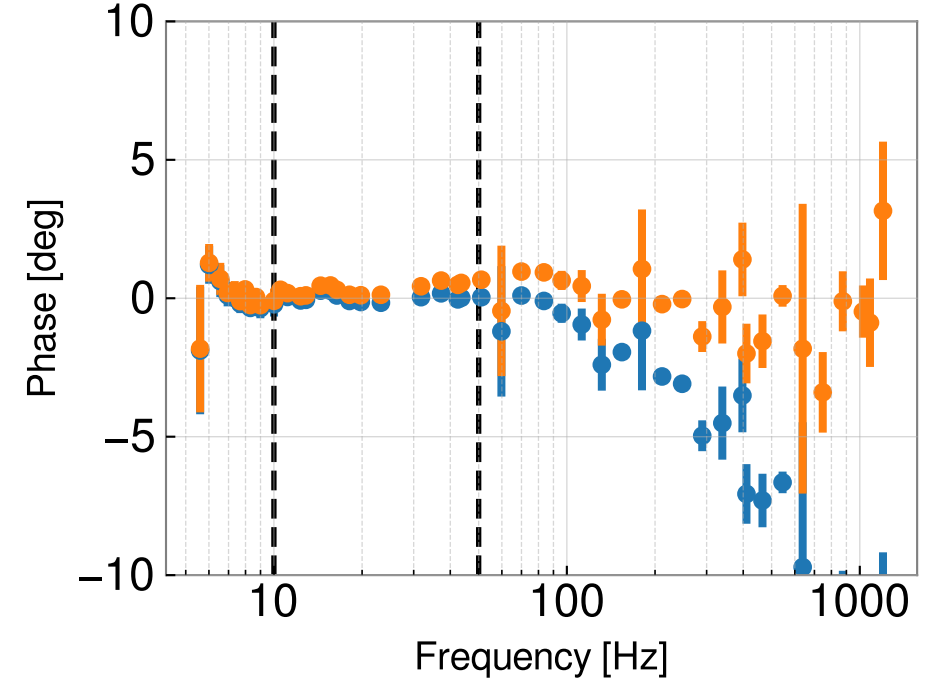
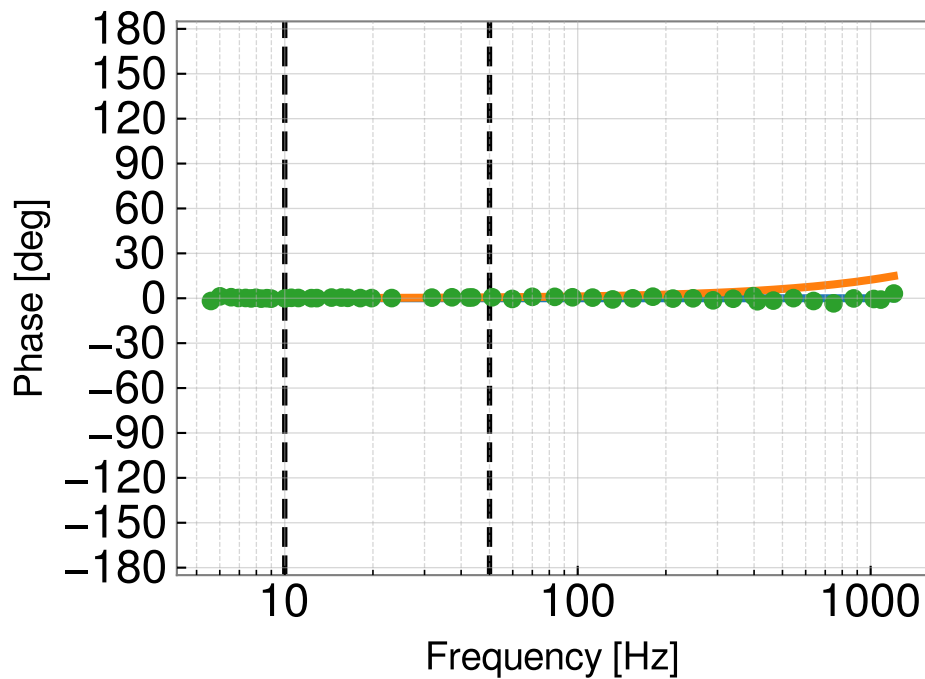
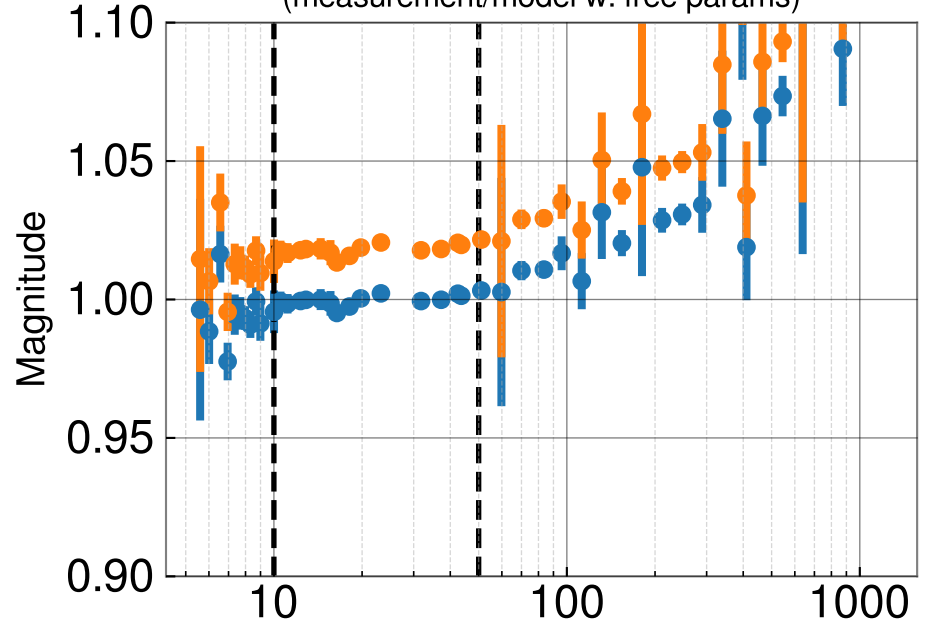
All fixed parameters are drawn from pydarm\_H1.ini

■ Model w free params from pydarm\_H1.ini
 ■ Model w free params from MCMC fit to 20230325T054854Z data
  Fit range 10.0 to 50.0 Hz

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

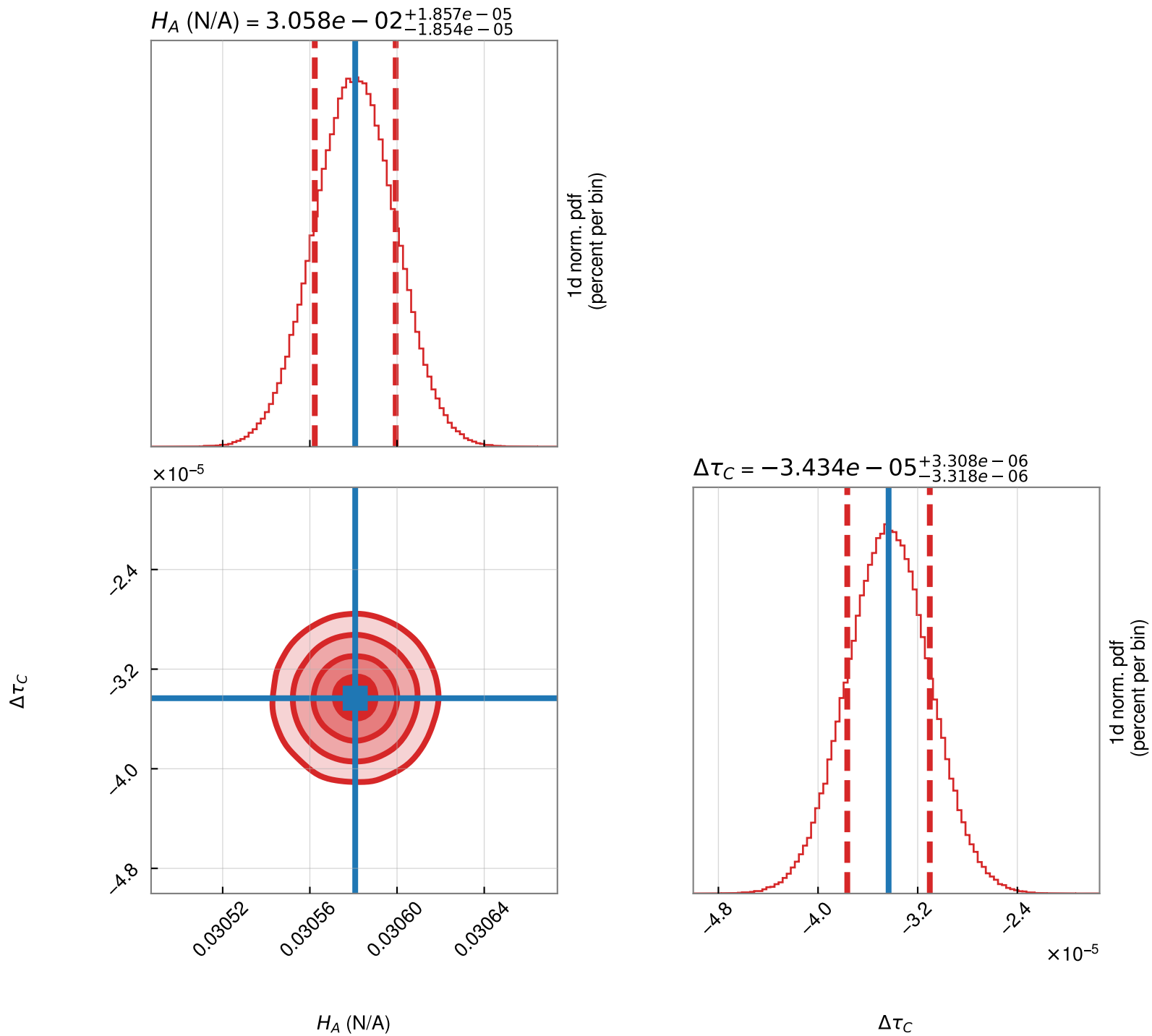
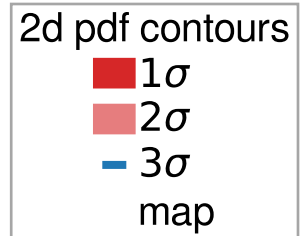


Actuation strength residuals  
(measurement/model w. free params)



Parameter	(value +/-)   value	+	-
Gain, H_A (N/A)	0.03058	1.857e-05 (0.06%)	1.854e-05 (0.06%)
Residual time delay, tau_c (s)	-3.434e-05	3.308e-06 (-9.63%)	3.318e-06 (-9.66%)
Gain, H_A (N/ct)	6.264e-10	3.804e-13 (0.06%)	3.798e-13 (0.06%)

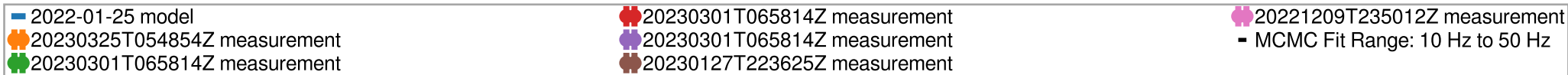
# 20230325T054854Z L2 actuation function MCMC corner plot



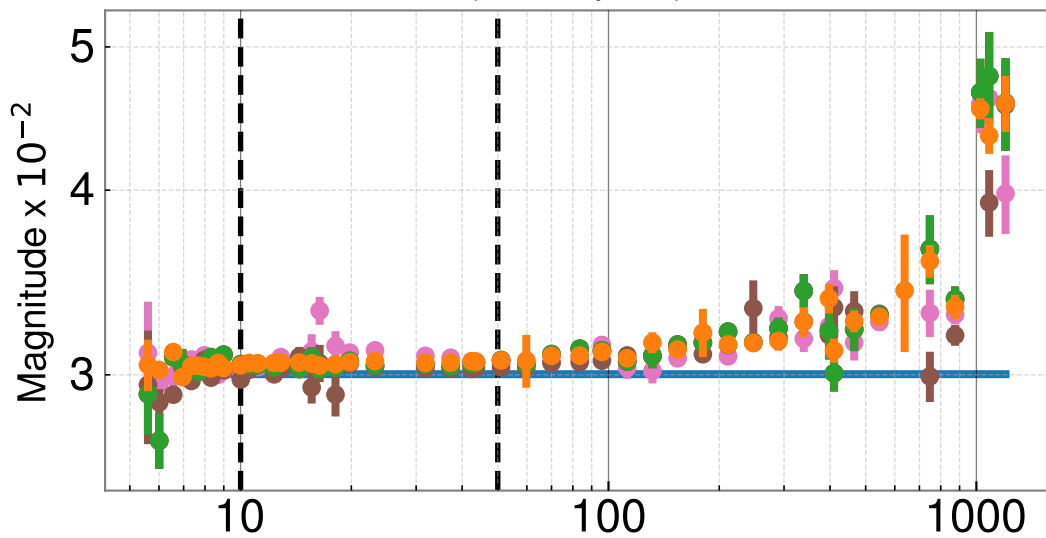


# H1 SUSEX L2 actuation model history

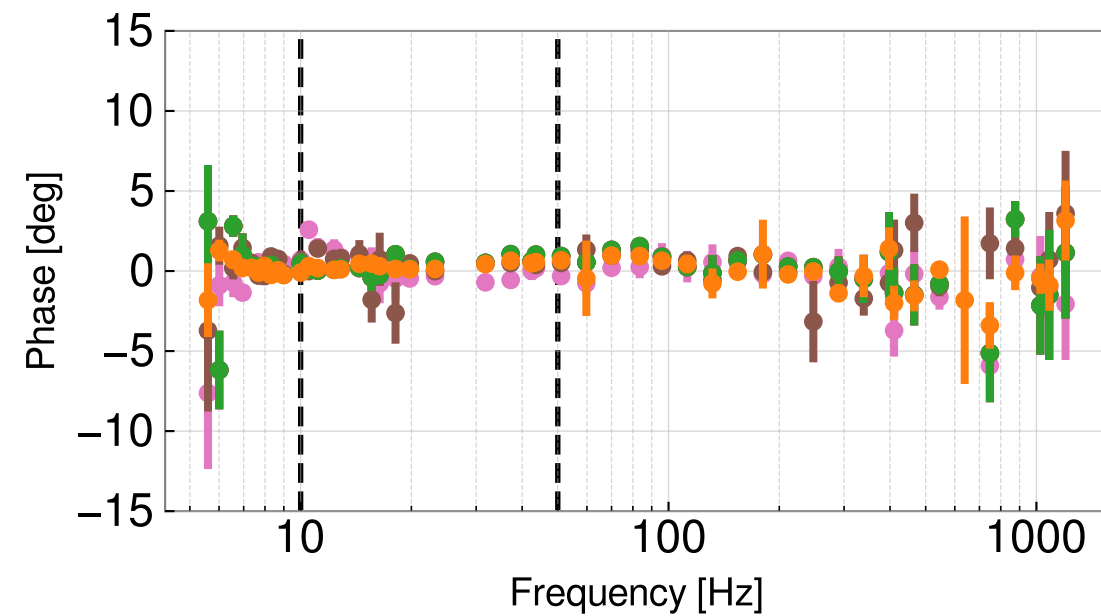
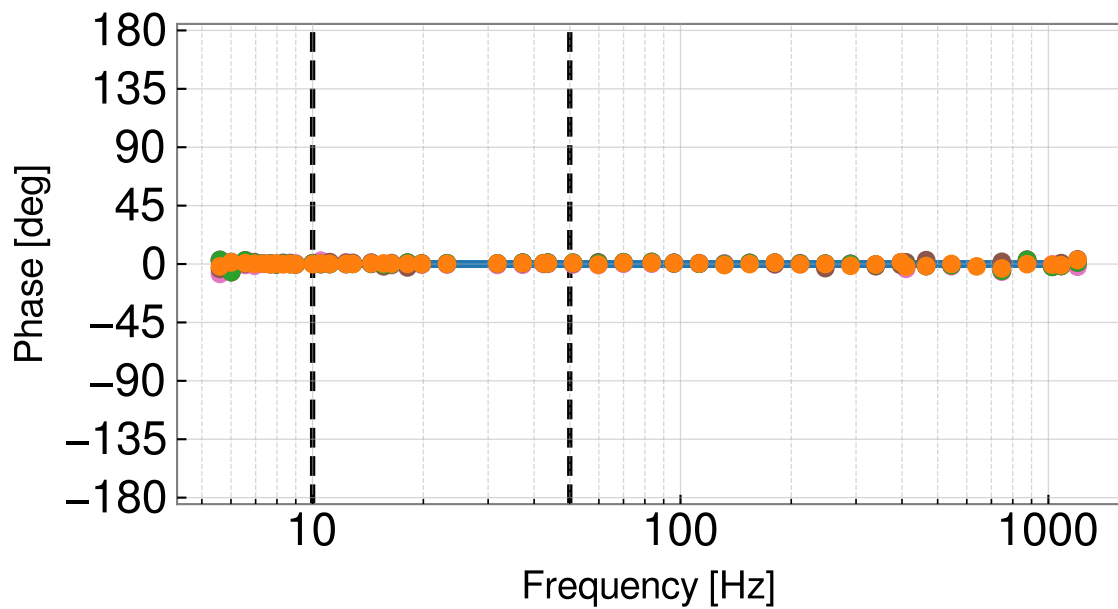
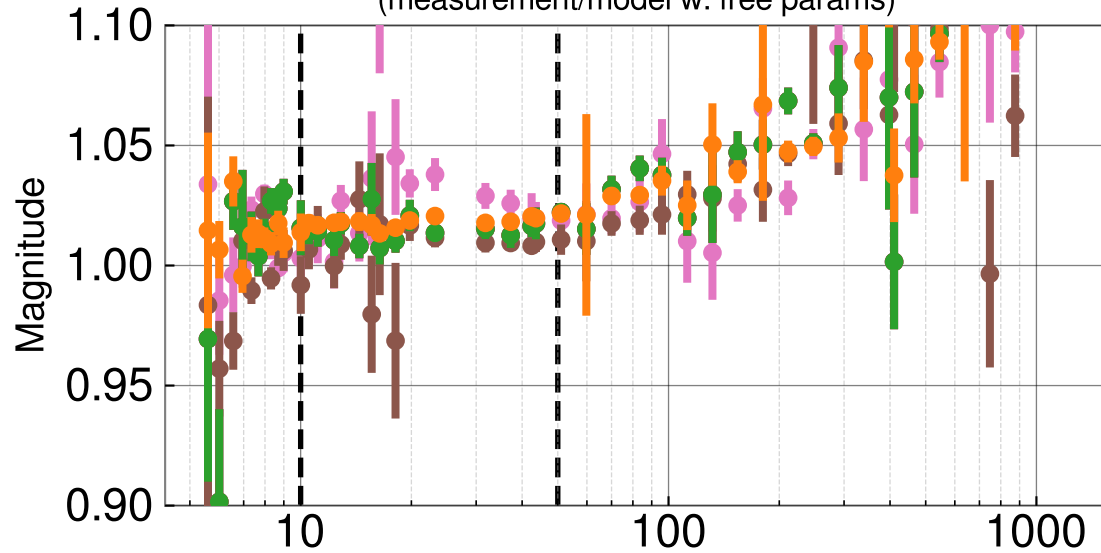
All fixed parameters are drawn from pydarm\_H1.ini



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

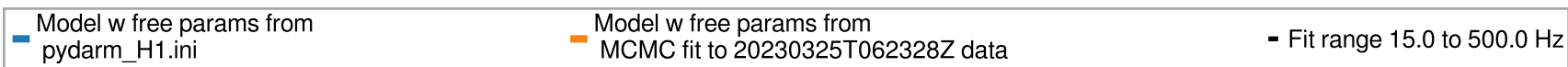


Actuation strength residuals  
(measurement/model w. free params)

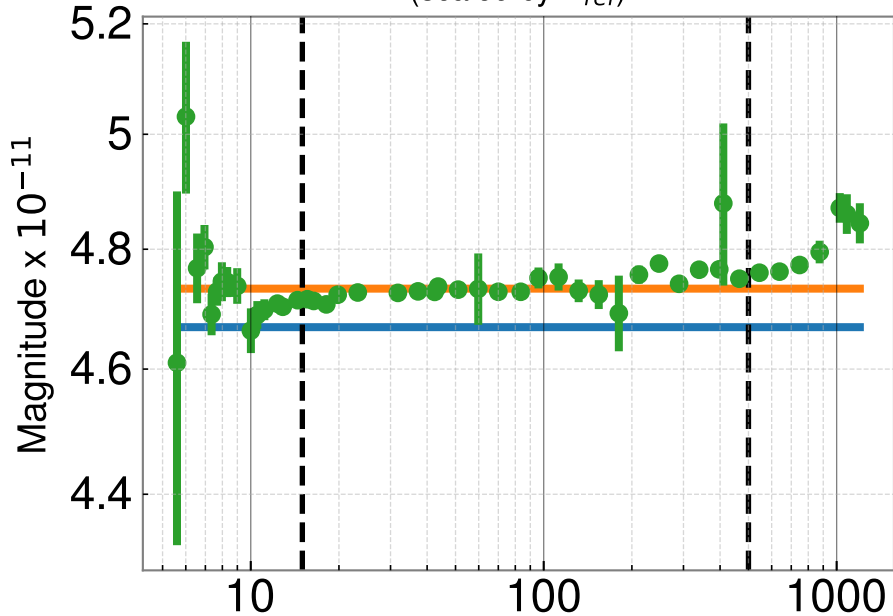


# H1SUSEX L3 actuation model MCMC summary

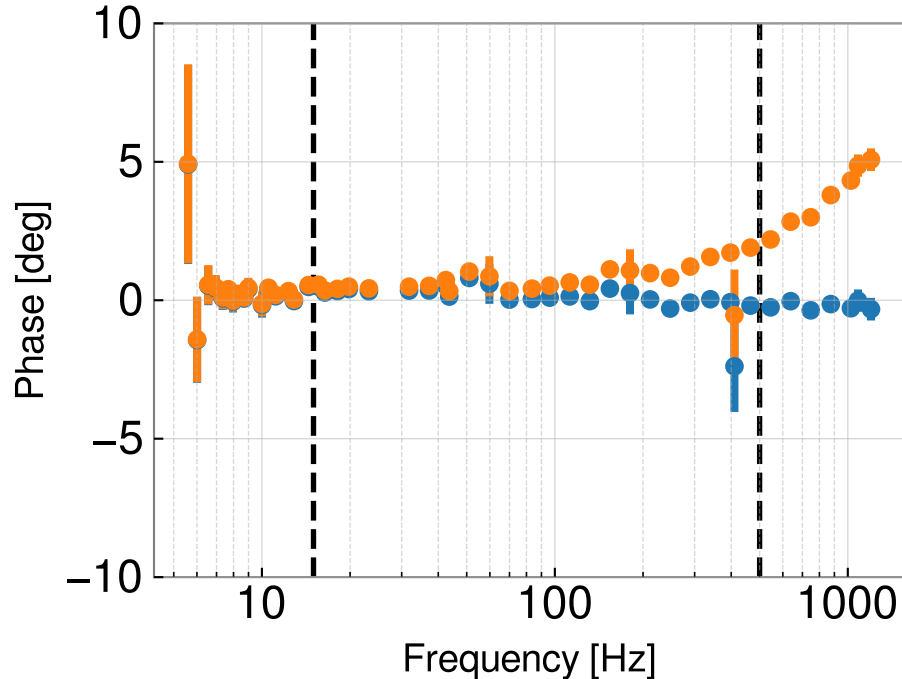
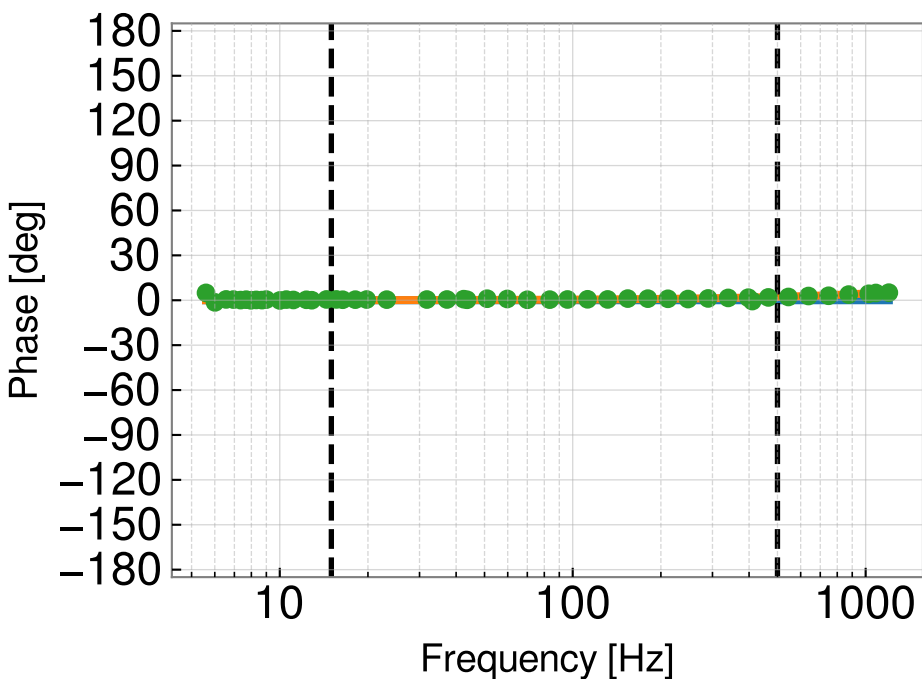
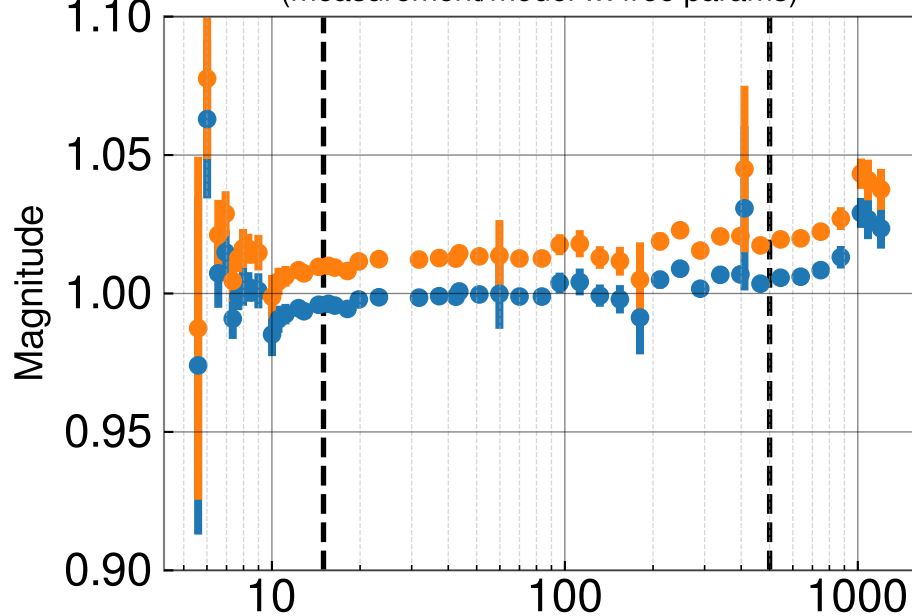
All fixed parameters are drawn from pydarm\_H1.ini



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

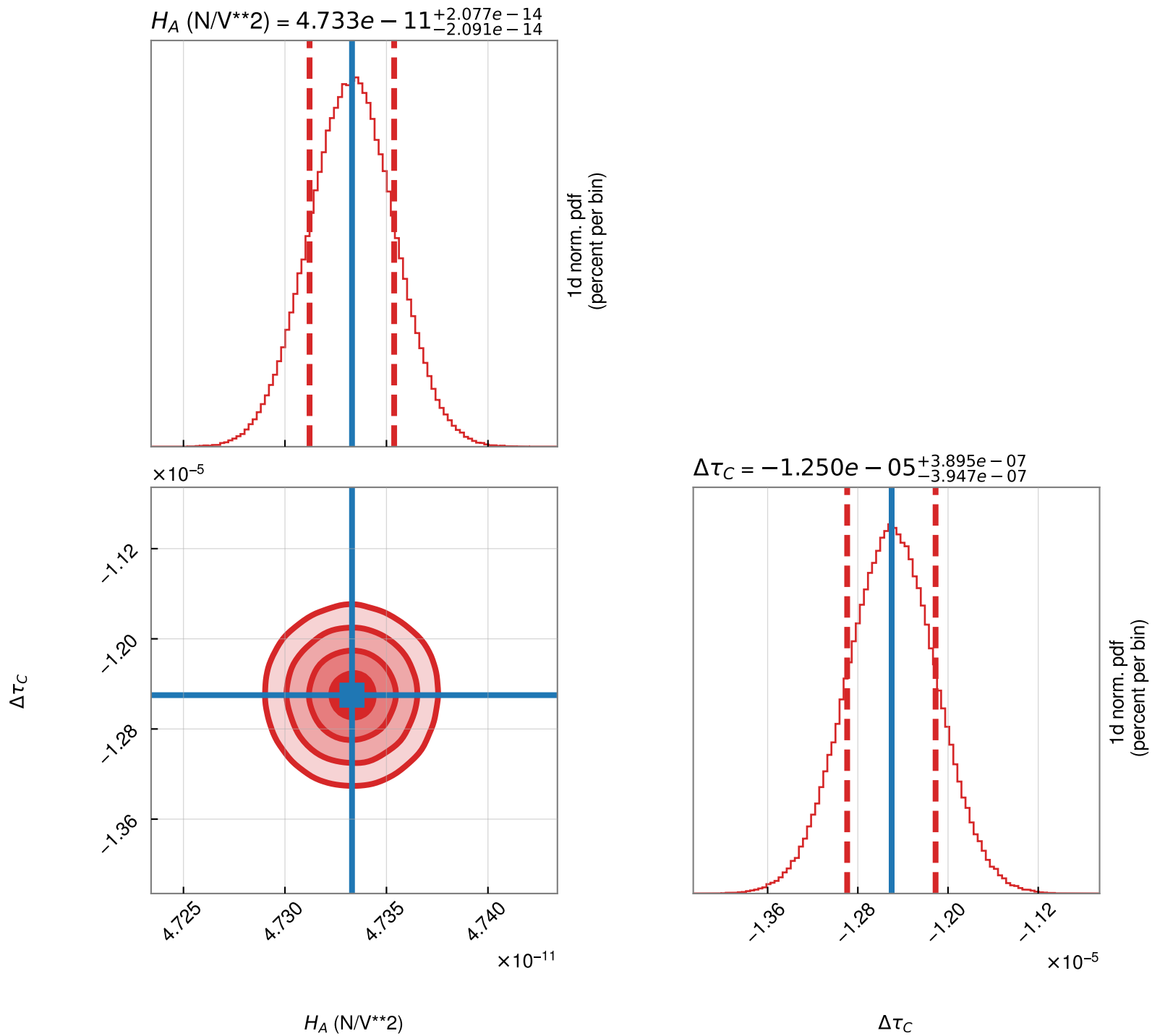
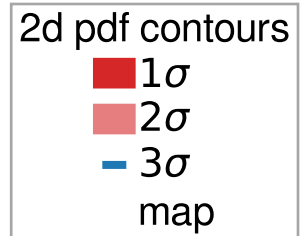


Actuation strength residuals  
(measurement/model w. free params)



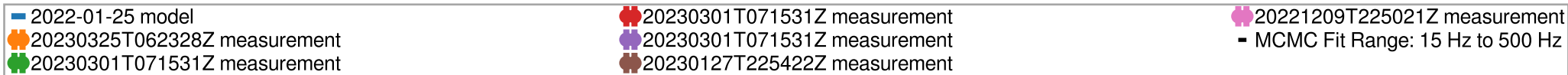
Parameter	(value +/-)   value	+	-
Gain, H_A (N/V**2)	4.733e-11	2.077e-14 (0.04%)	2.091e-14 (0.04%)
Residual time delay, tau_c (s)	-1.25e-05	3.895e-07 (-3.12%)	3.947e-07 (-3.16%)
Gain, H_A (N/ct)	5.054e-12	2.217e-15 (0.04%)	2.232e-15 (0.04%)

# 20230325T062328Z L3 actuation function MCMC corner plot

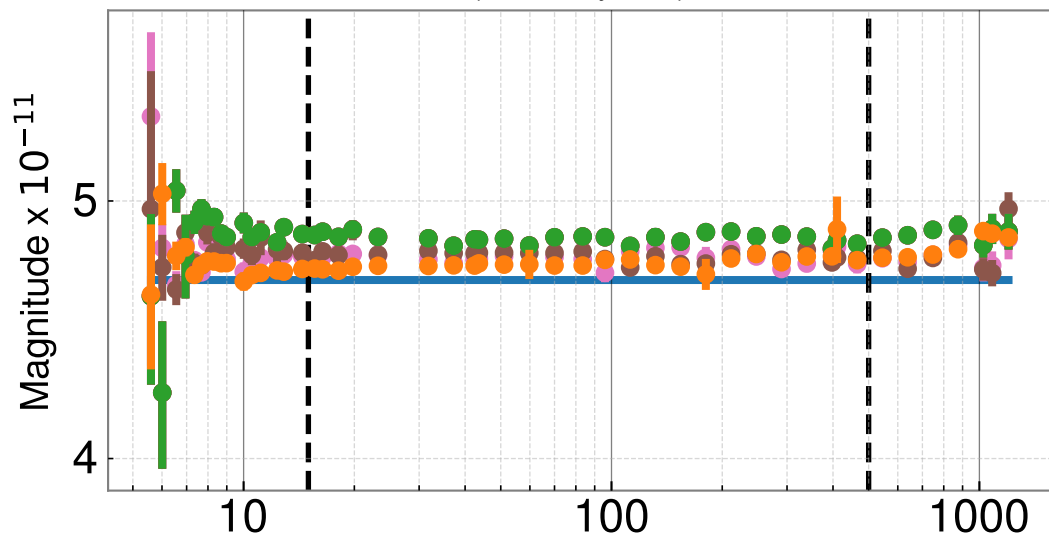


# H1 SUSEX L3 actuation model history

All fixed parameters are drawn from pydarm\_H1.ini



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



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

