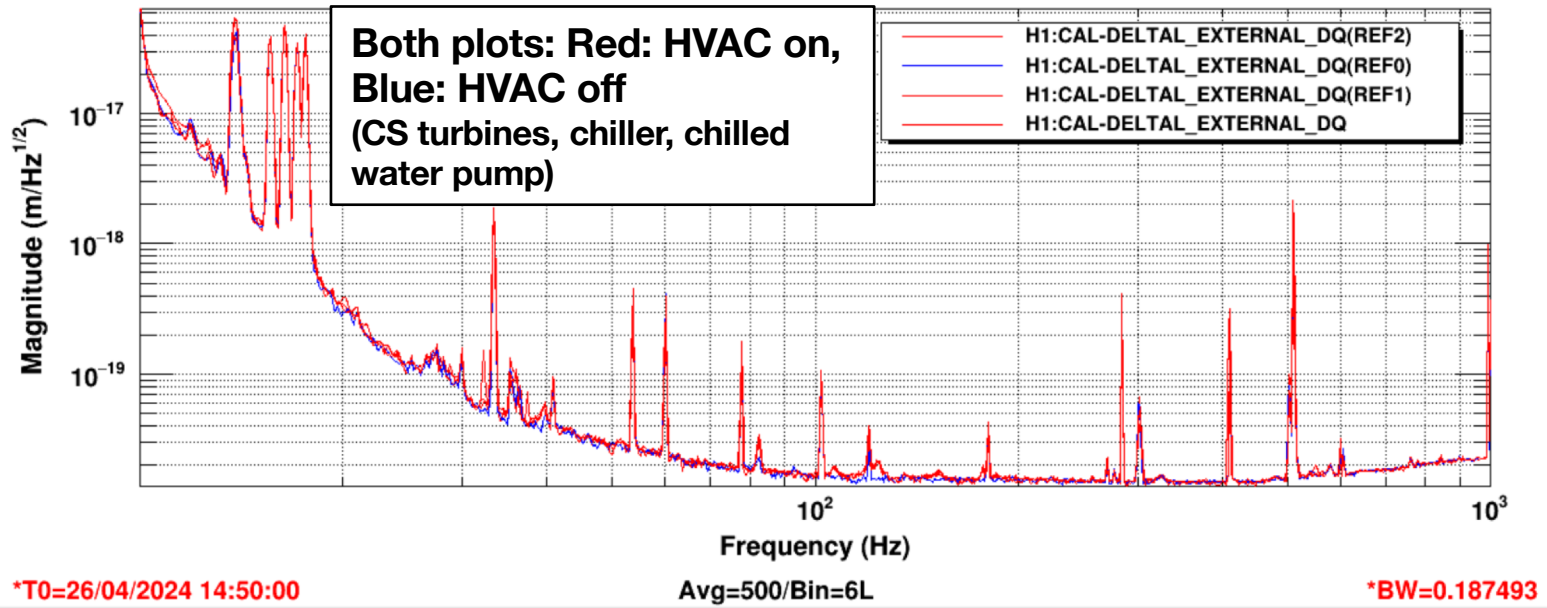**HVAC mainly coupling through jitter noise**

DARM

DARM coherence with beam jitter detected by PDs

Both plots: Red: HVAC on, Blue: HVAC off (CS turbines, chiller, chilled water pump)

H1:CAL-DELTAL_EXTERNAL_DQ(REF2)
H1:CAL-DELTAL_EXTERNAL_DQ(REF0)
H1:CAL-DELTAL_EXTERNAL_DQ(REF1)
H1:CAL-DELTAL_EXTERNAL_DQ

*T0=26/04/2024 14:50:00   Avg=500/Bin=6L   *BW=0.187493

Coherence

H1:IMC-WFS_A_DC_PIT_OUT_DQ(REF7) / H1:CAL-DELTAL_EXTERNAL_DQ(REF7)
H1:IMC-WFS_A_DC_PIT_OUT_DQ(REF6) / H1:CAL-DELTAL_EXTERNAL_DQ(REF6)

Main effect of HVAC is beteen 100 and 200 Hz

HVAC does not drive jitter peaks above 200 Hz

*T0=26/04/2024 14:00:00   Avg=500/Bin=2L   BW=0.187499