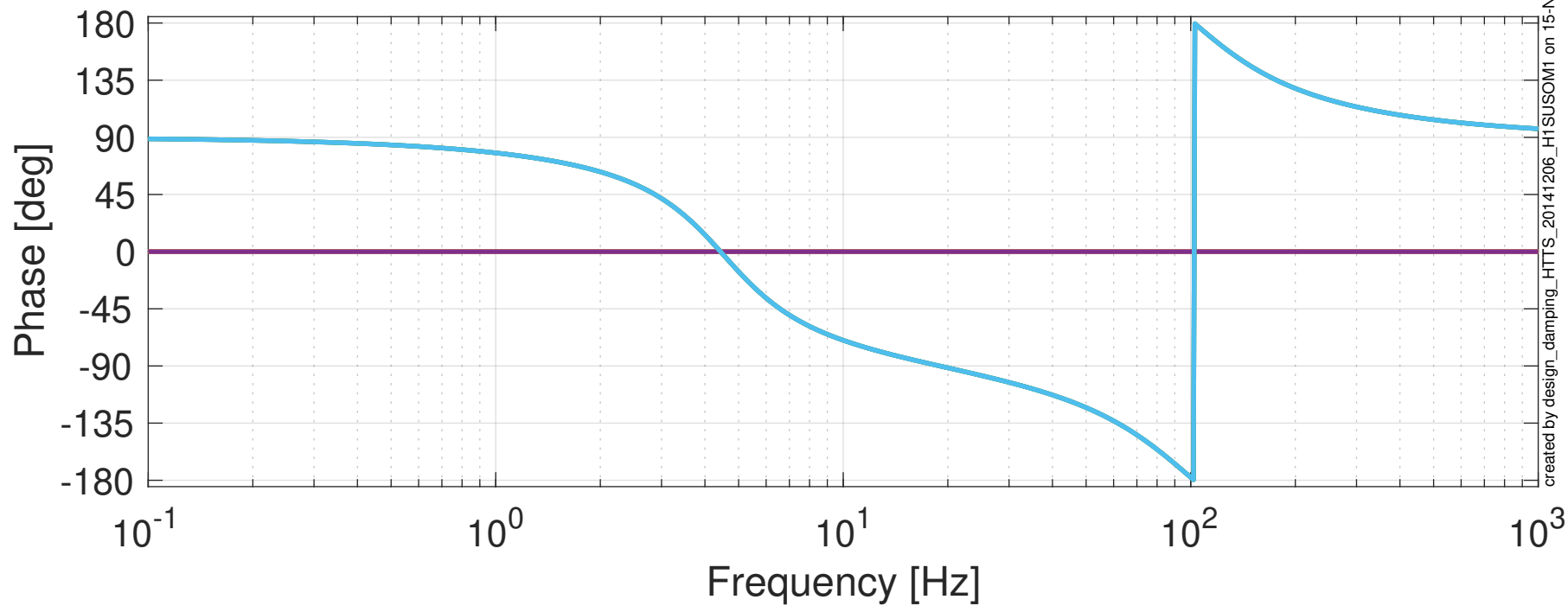
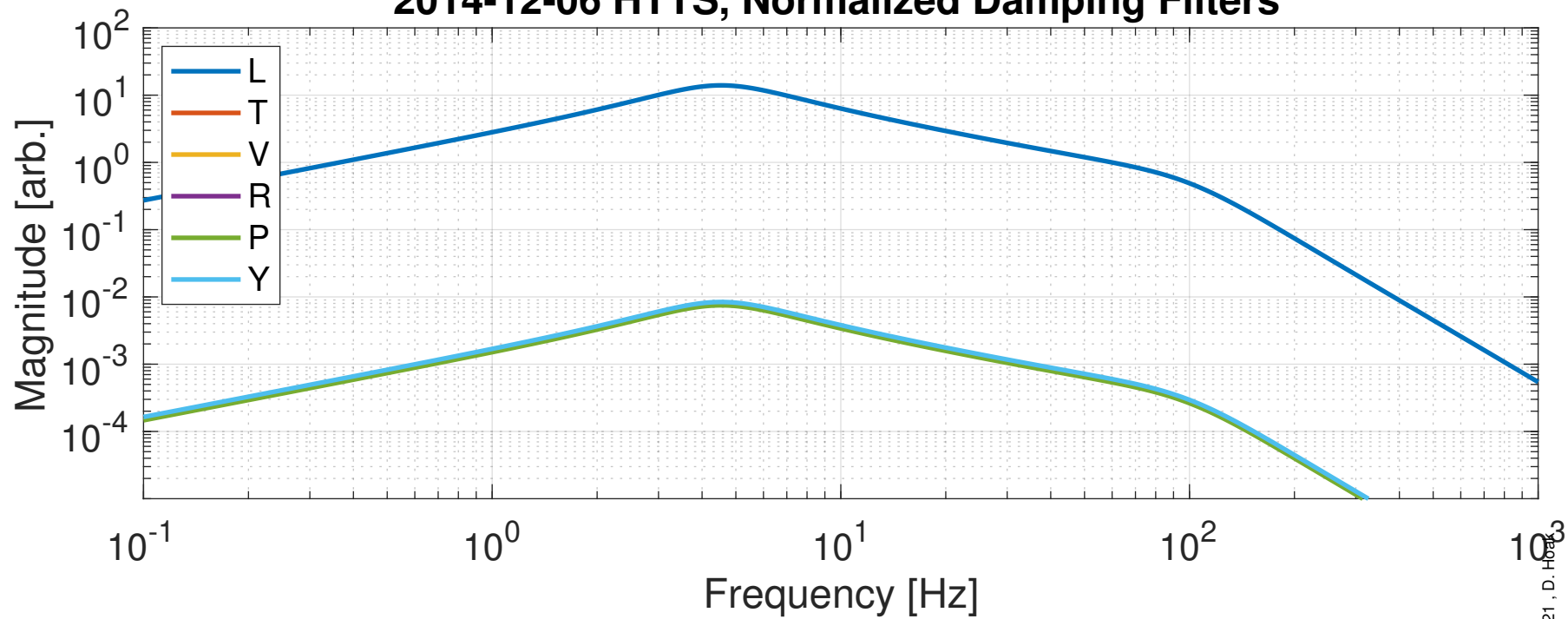


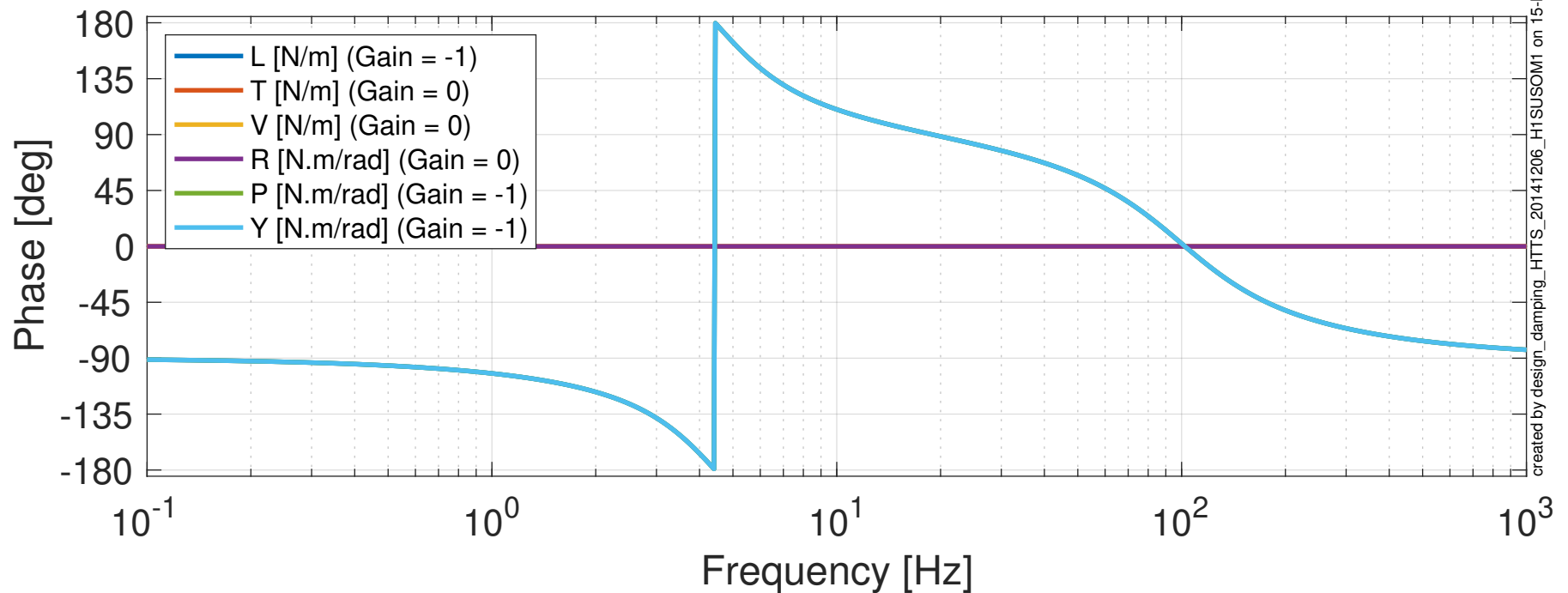
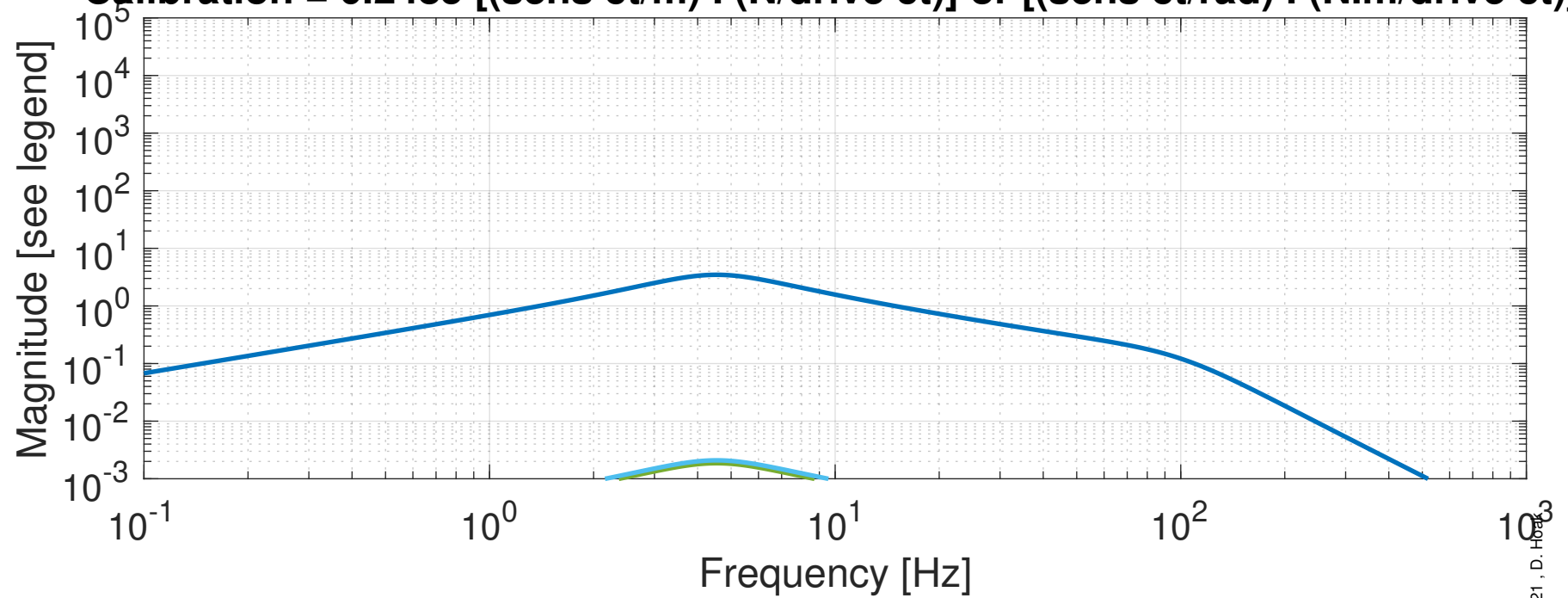
2014-12-06 HTTS, Normalized Damping Filters



created by design_damping_HTTS_20141206_HTSUSOM1 on 15-Nov-2021, D. Hobar

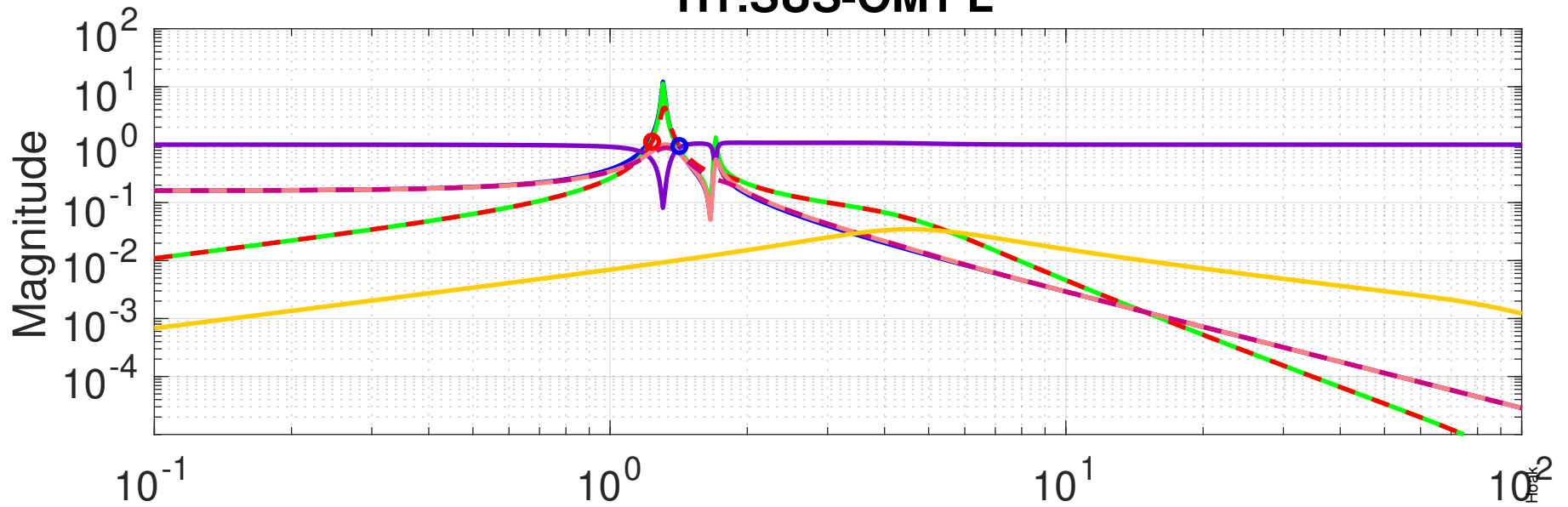
2014-12-06 HTTS, Calibrated Damping Filters

Calibration = 0.2485 [(sens ct/m) . (N/drive ct)] or [(sens ct/rad) . (N.m/drive ct)]



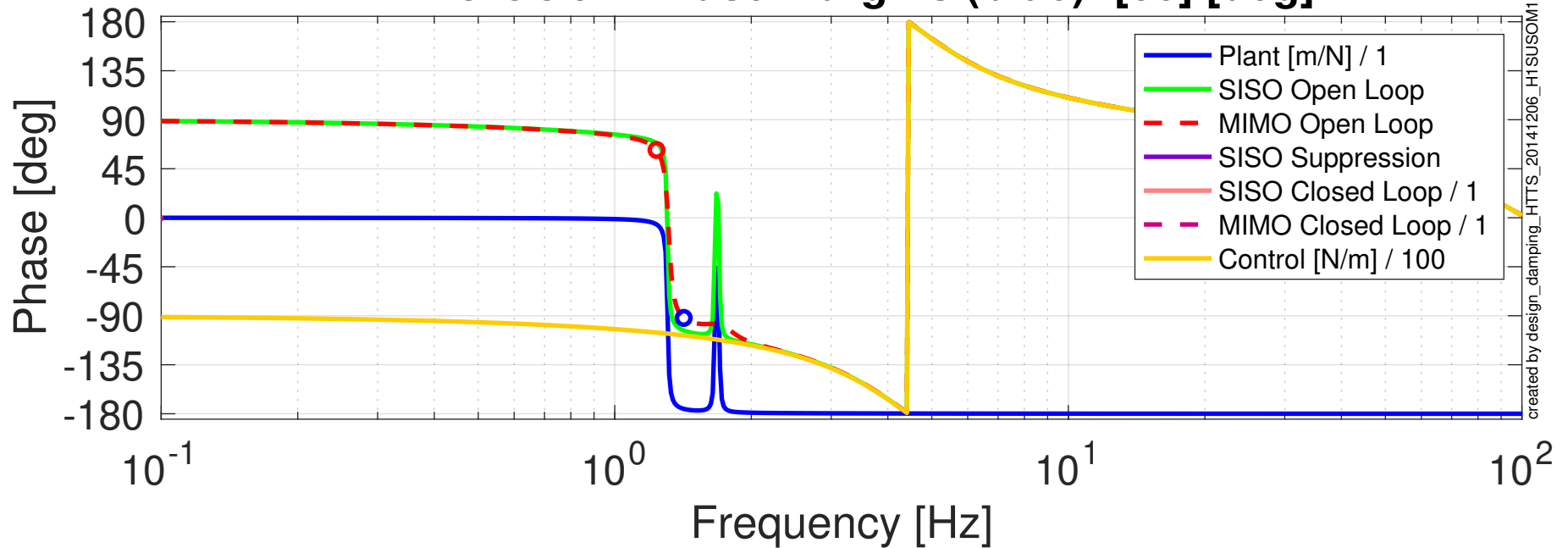
Damping Loop Design

H1:SUS-OM1 L



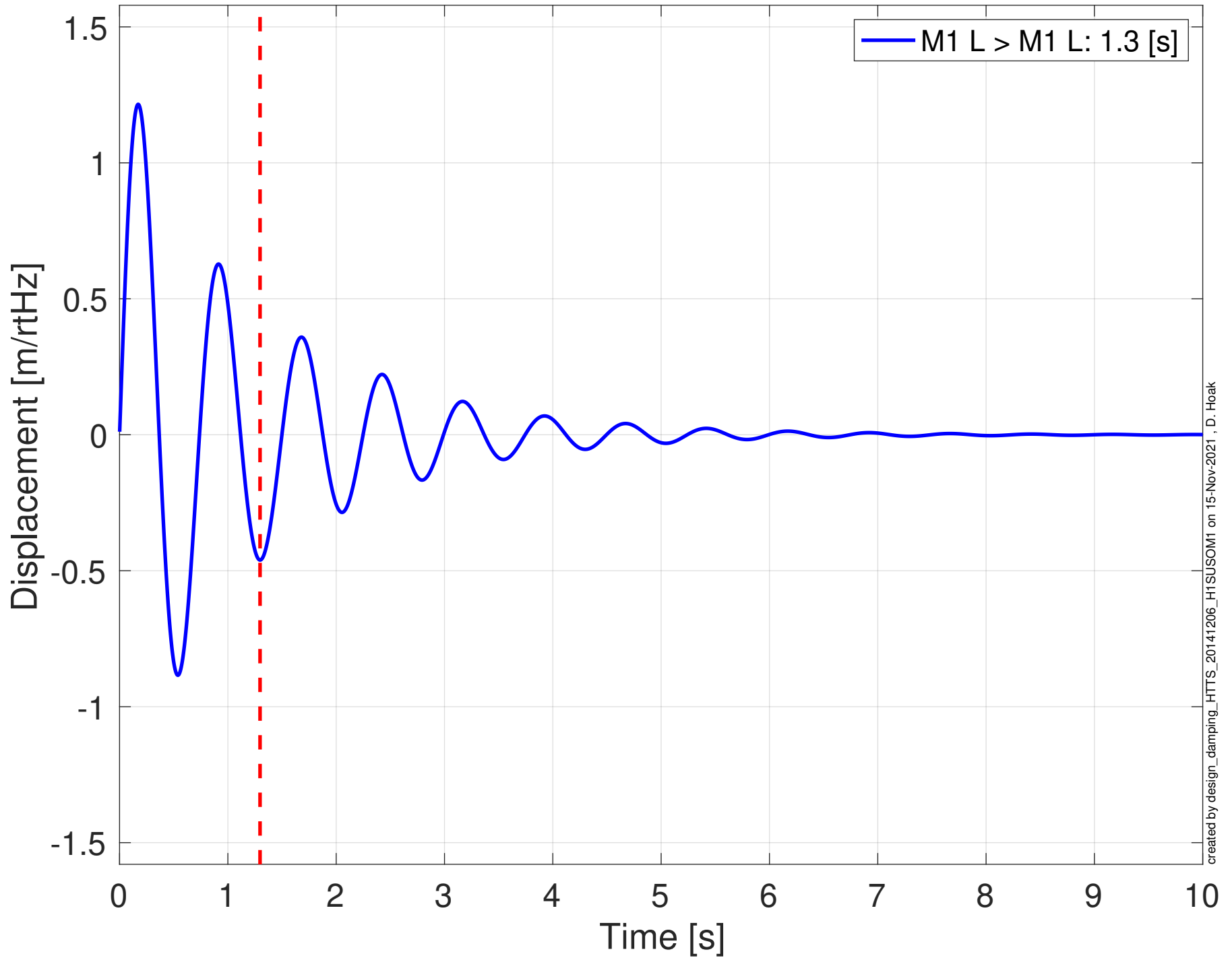
MIMO LUGF Phase Margins (red): [118] [deg]

MIMO UUGF Phase Margins (blue): [88] [deg]

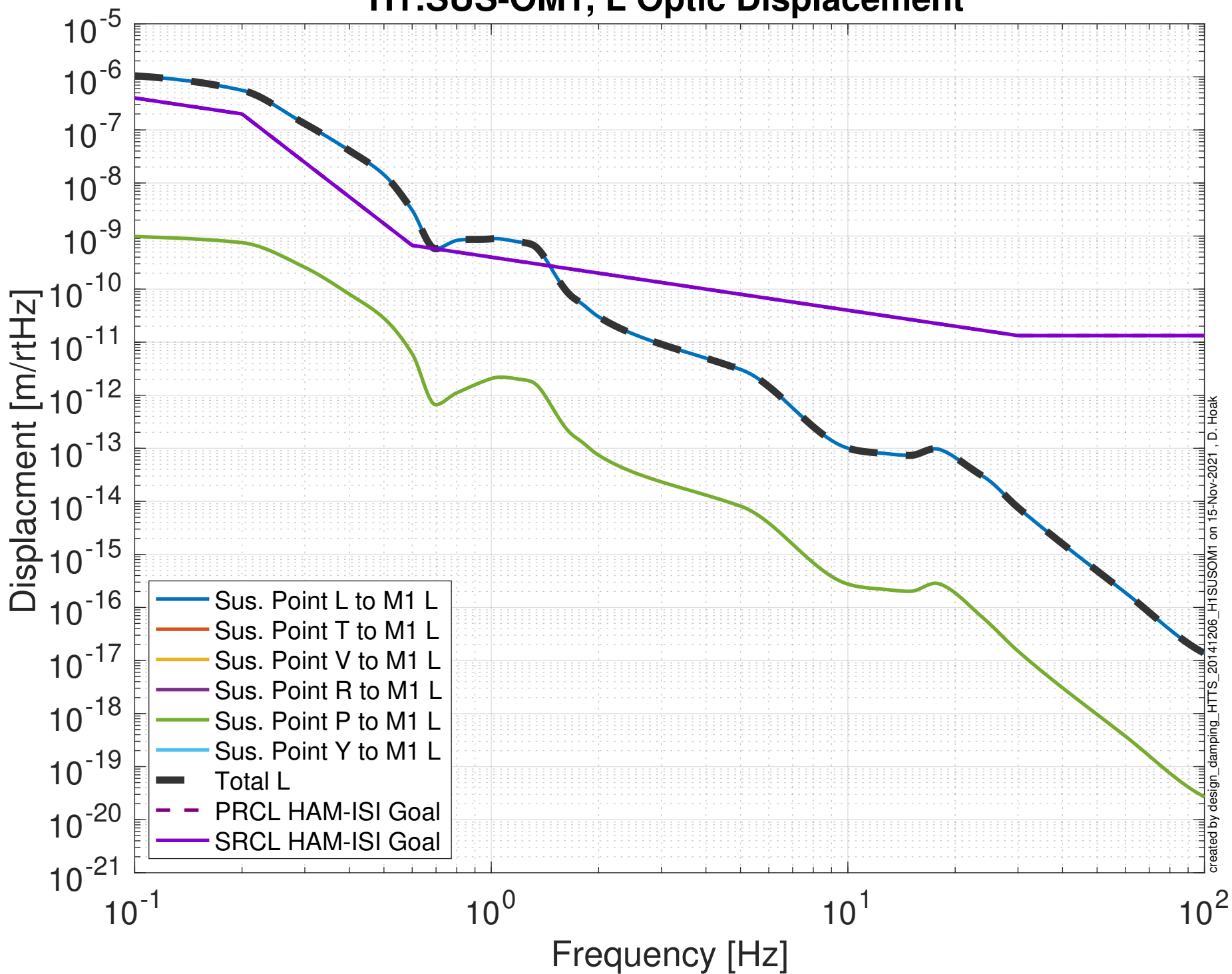


Damped Impulse Response

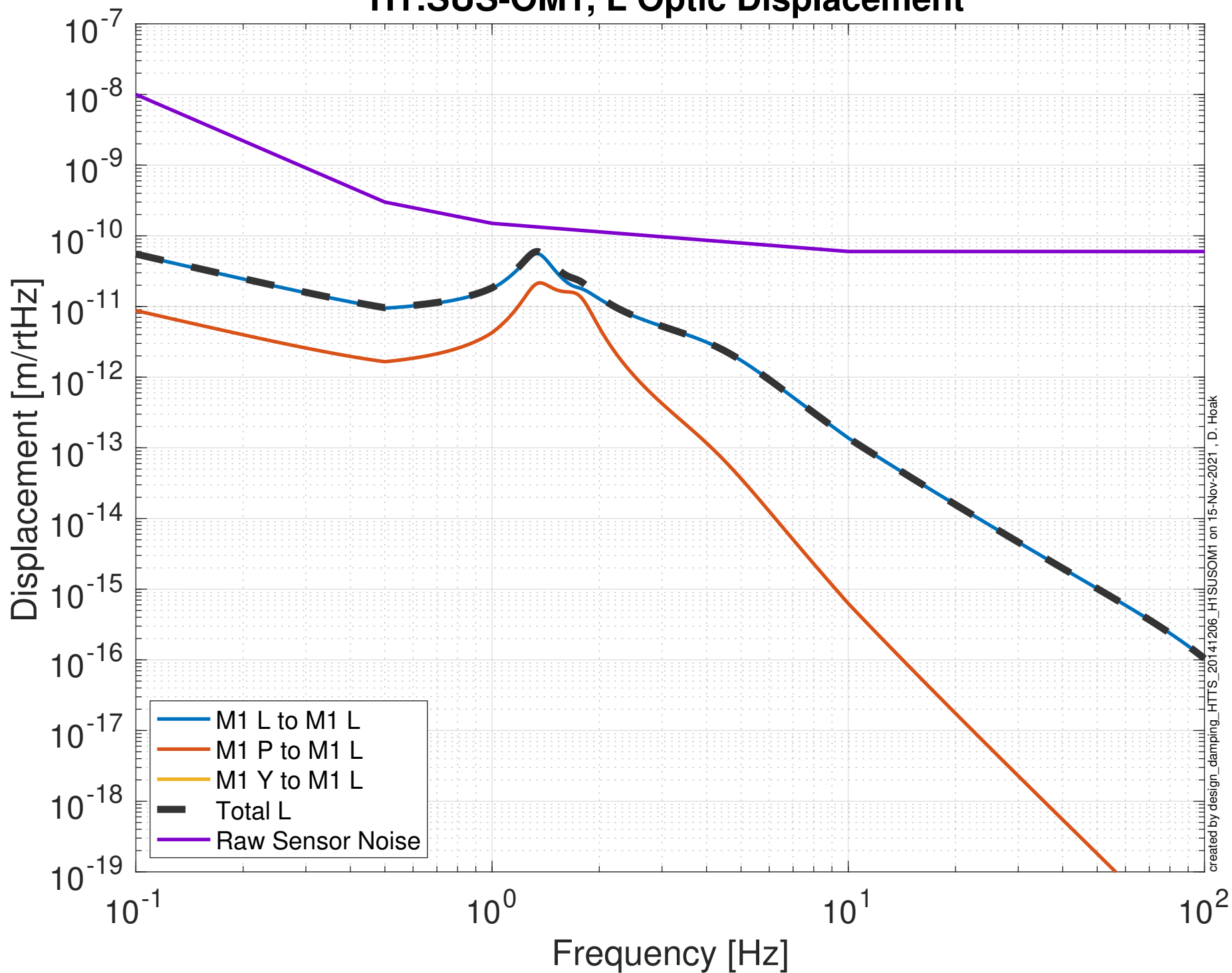
H1:SUS-OM1 L



Projected Sus. Point > Optic Seismic Noise Budget H1:SUS-OM1, L Optic Displacement

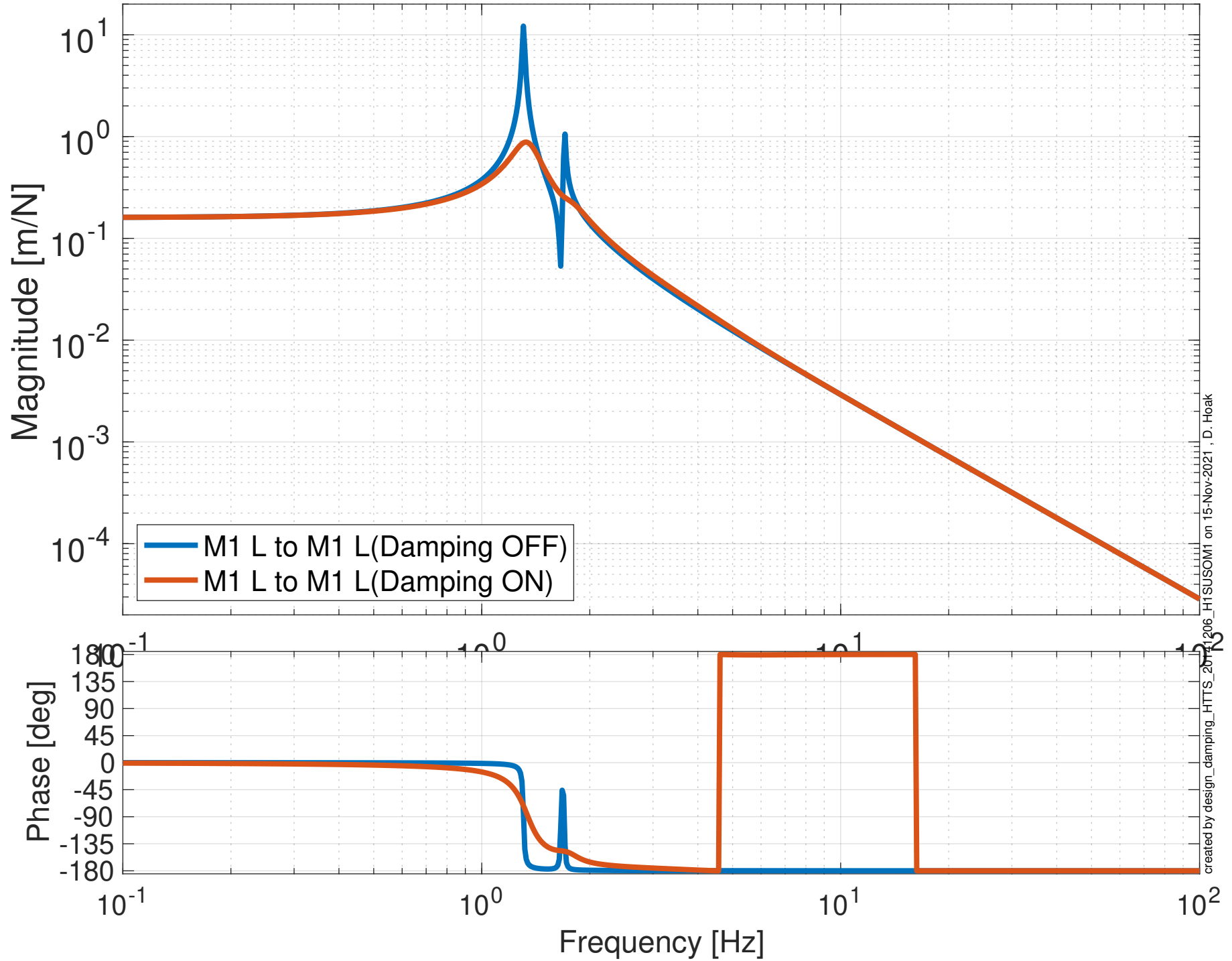


Projected Top Mass Sensor > Optic Noise Budget H1:SUS-OM1, L Optic Displacement



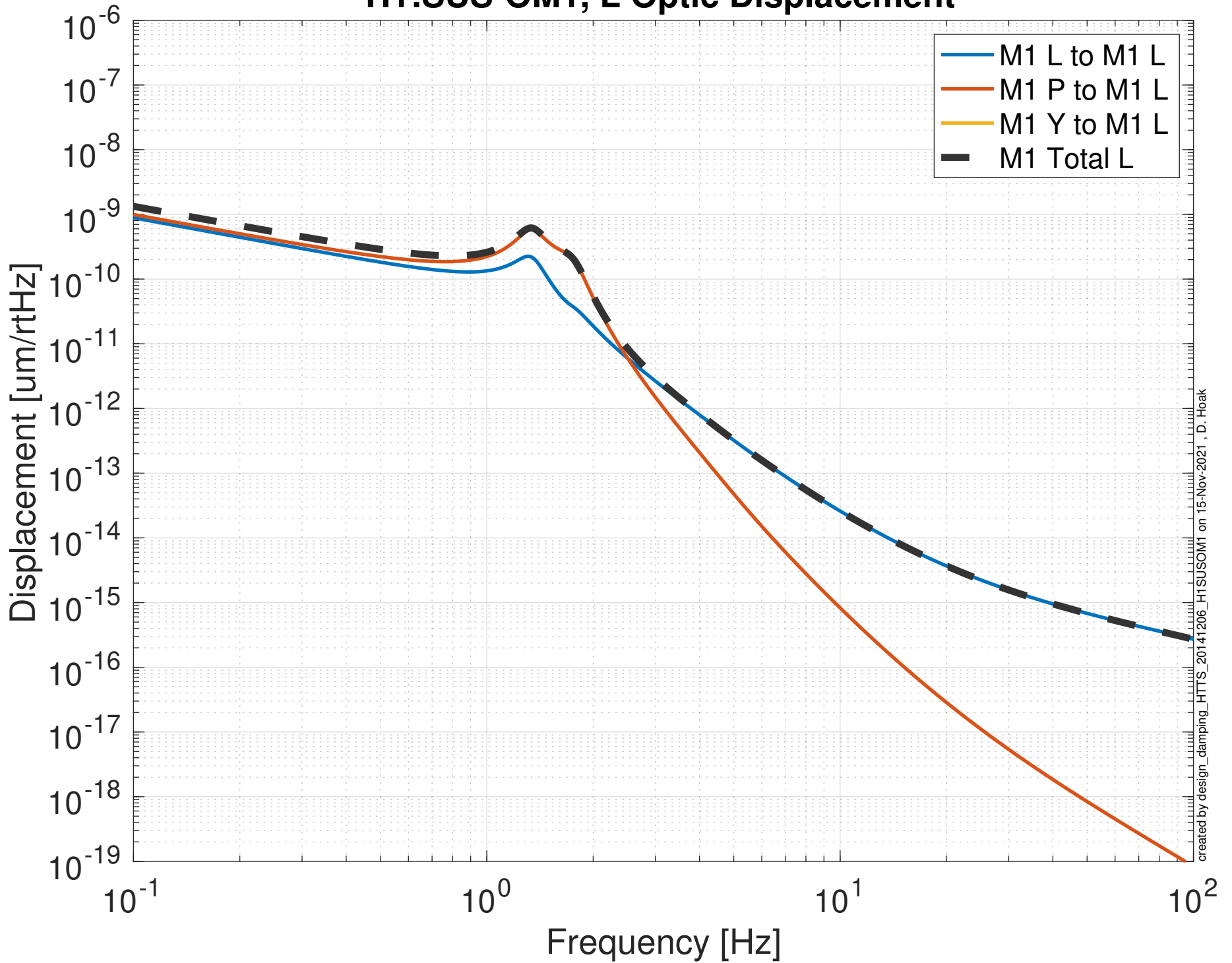
Global Control Transfer Functions to Optic

H1:SUS-OM1, L



created by design_damping_H1SUSOM1 on 15-Nov-2021, D. Hoak

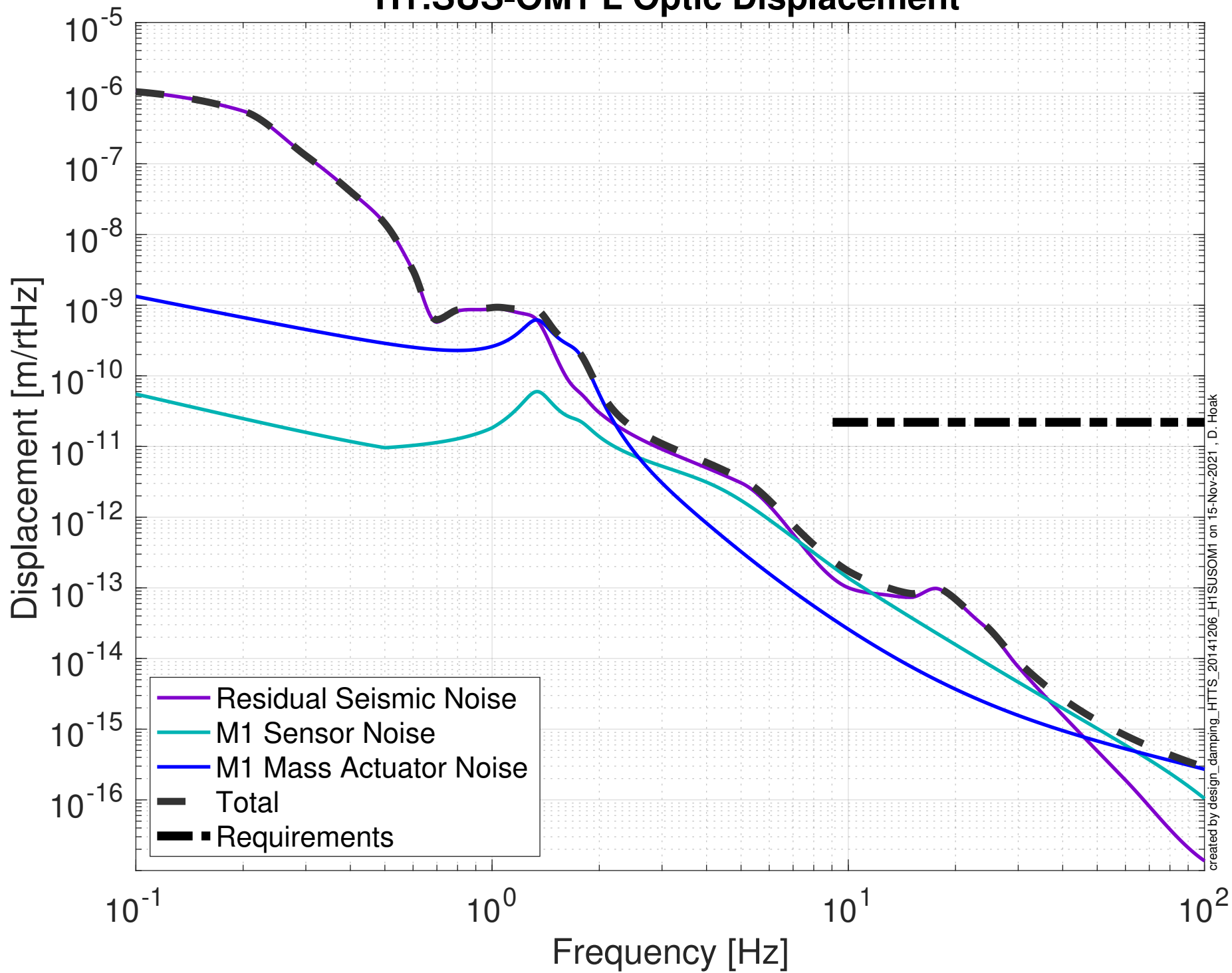
Projected M1 Mass Actuator > Optic Noise Budget H1:SUS-OM1, L Optic Displacement



created by design_damping_HTT5_20141206_H1SUSOM1 on 15-Nov-2021, D. Hoak

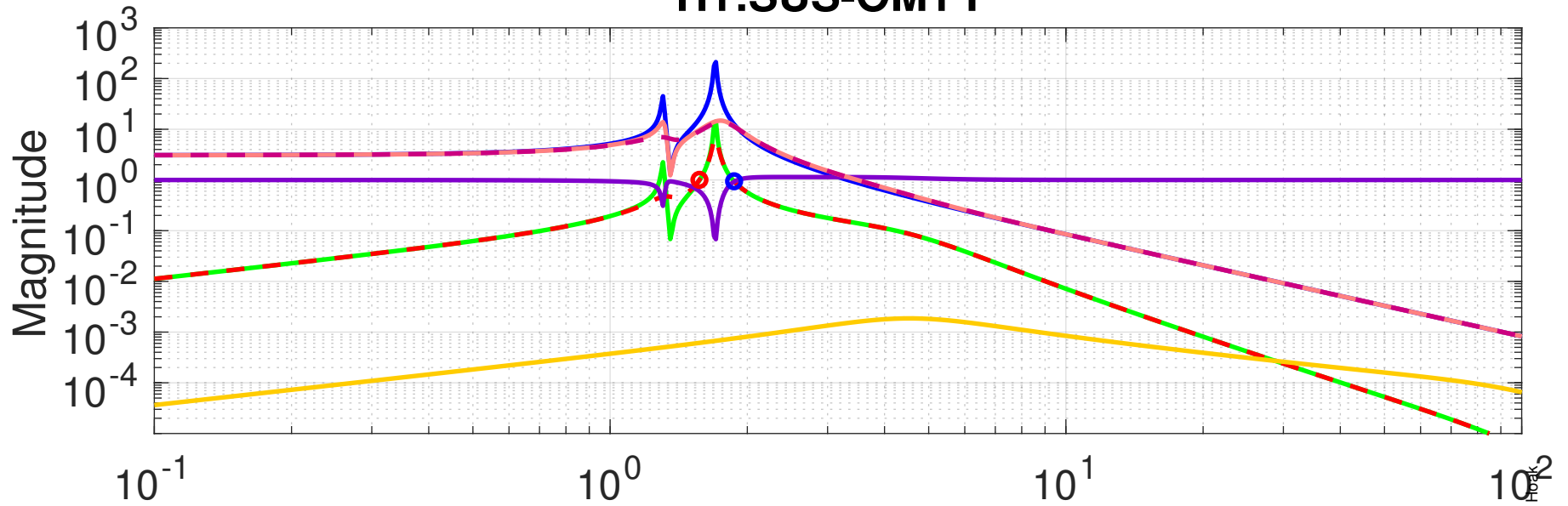
Damping Loop Performance

H1:SUS-OM1 L Optic Displacement

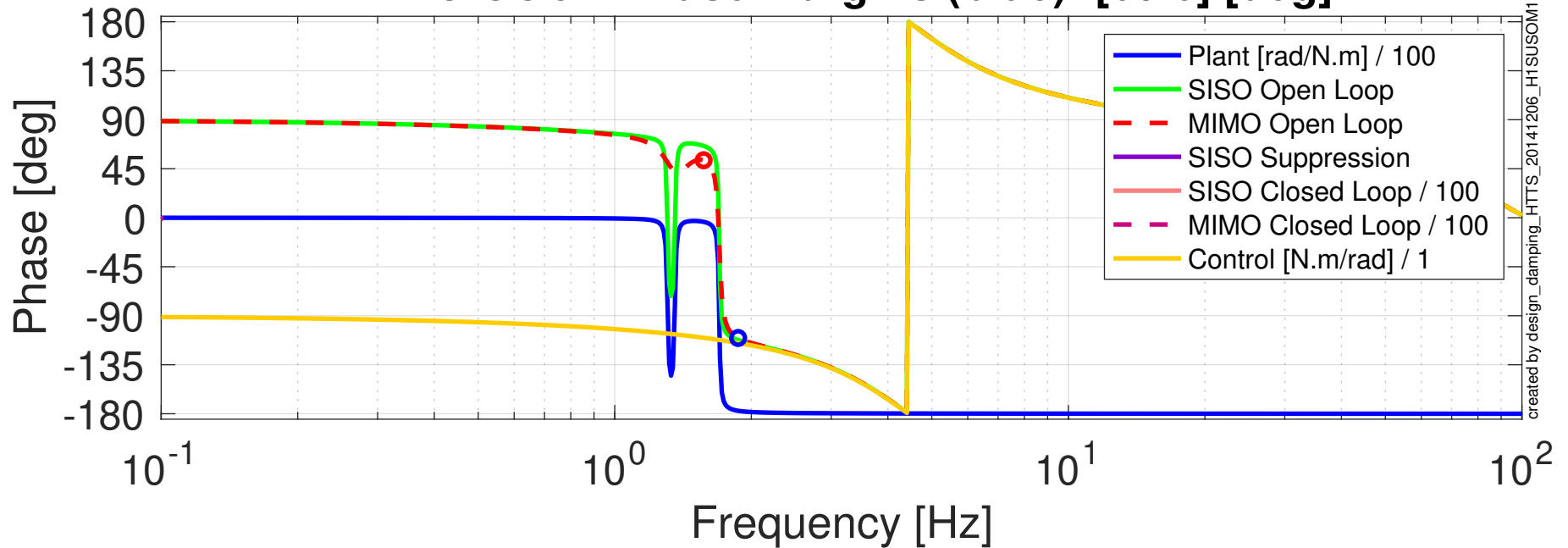


Damping Loop Design

H1:SUS-OM1 P

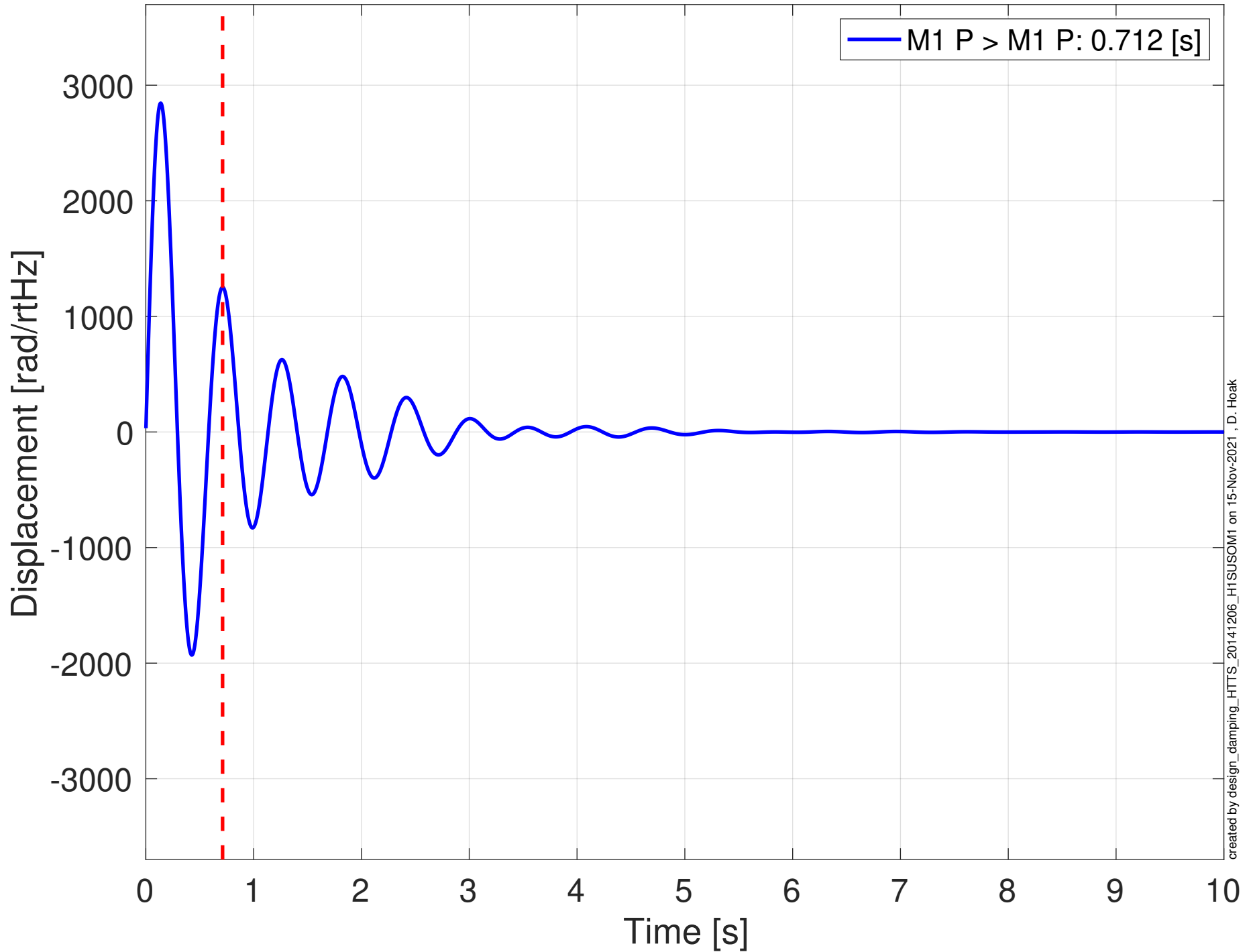


MIMO LUGF Phase Margins (red): [127] [deg]
MIMO UUGF Phase Margins (blue): [69.6] [deg]

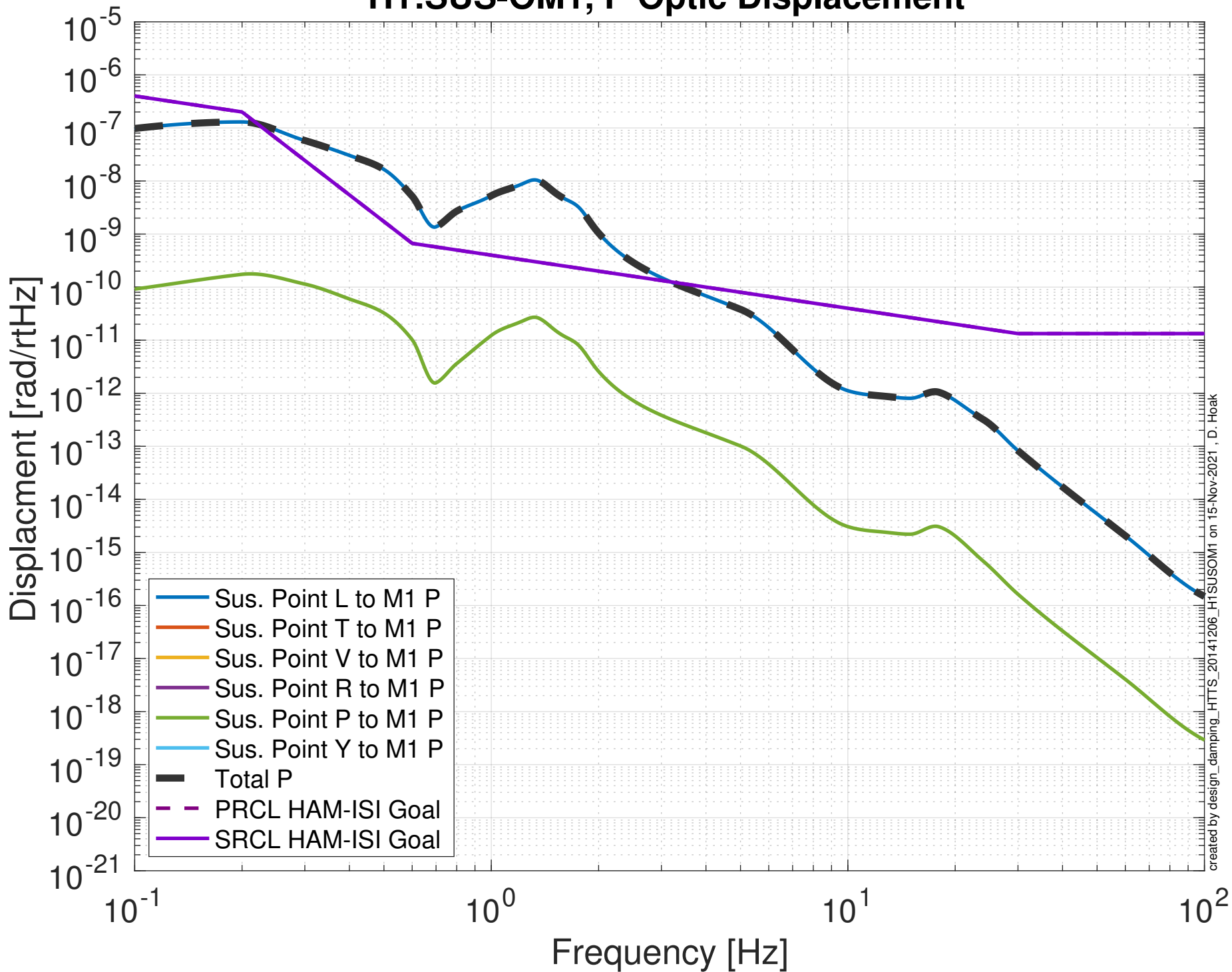


Damped Impulse Response

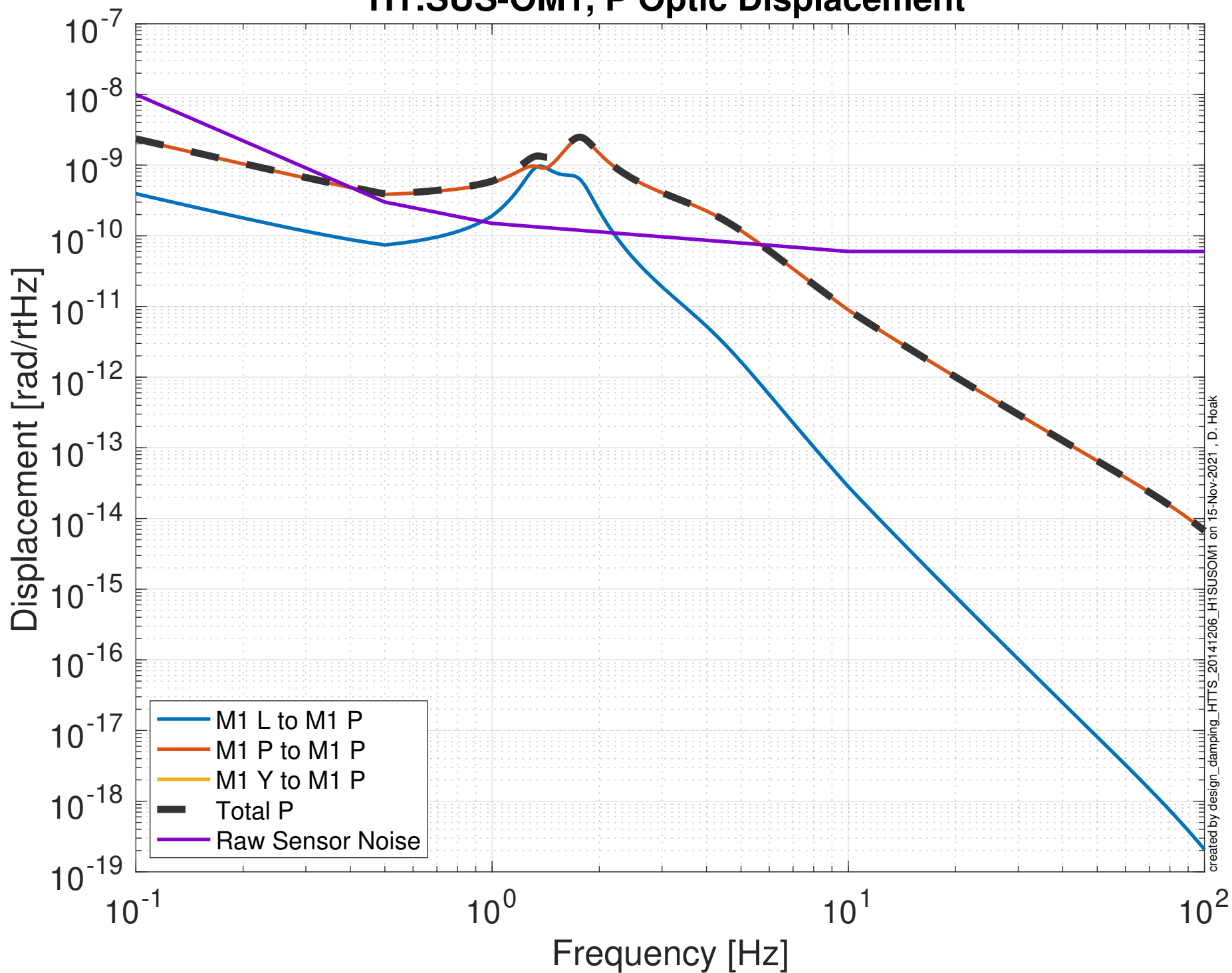
H1:SUS-OM1 P



Projected Sus. Point > Optic Seismic Noise Budget H1:SUS-OM1, P Optic Displacement

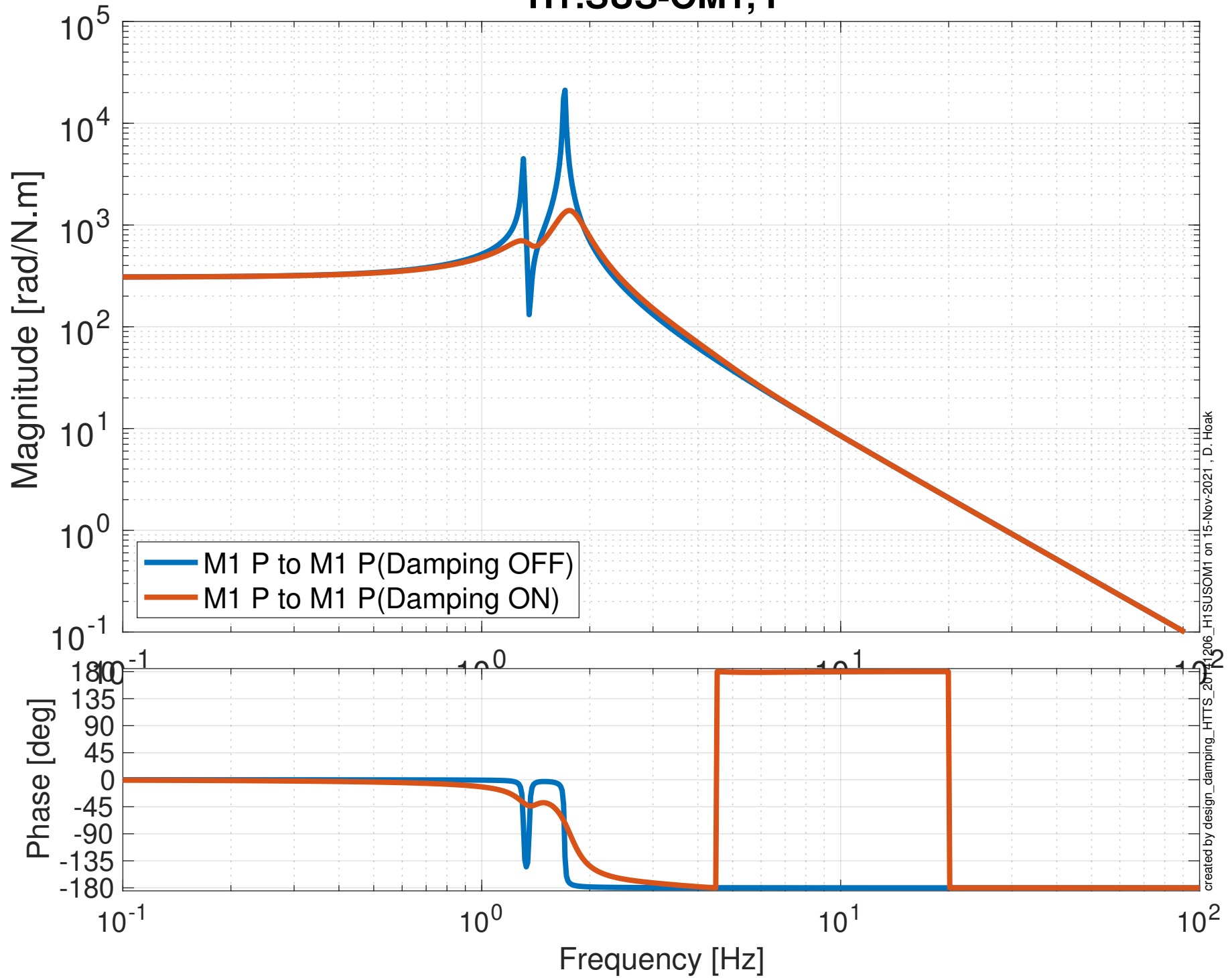


Projected Top Mass Sensor > Optic Noise Budget H1:SUS-OM1, P Optic Displacement

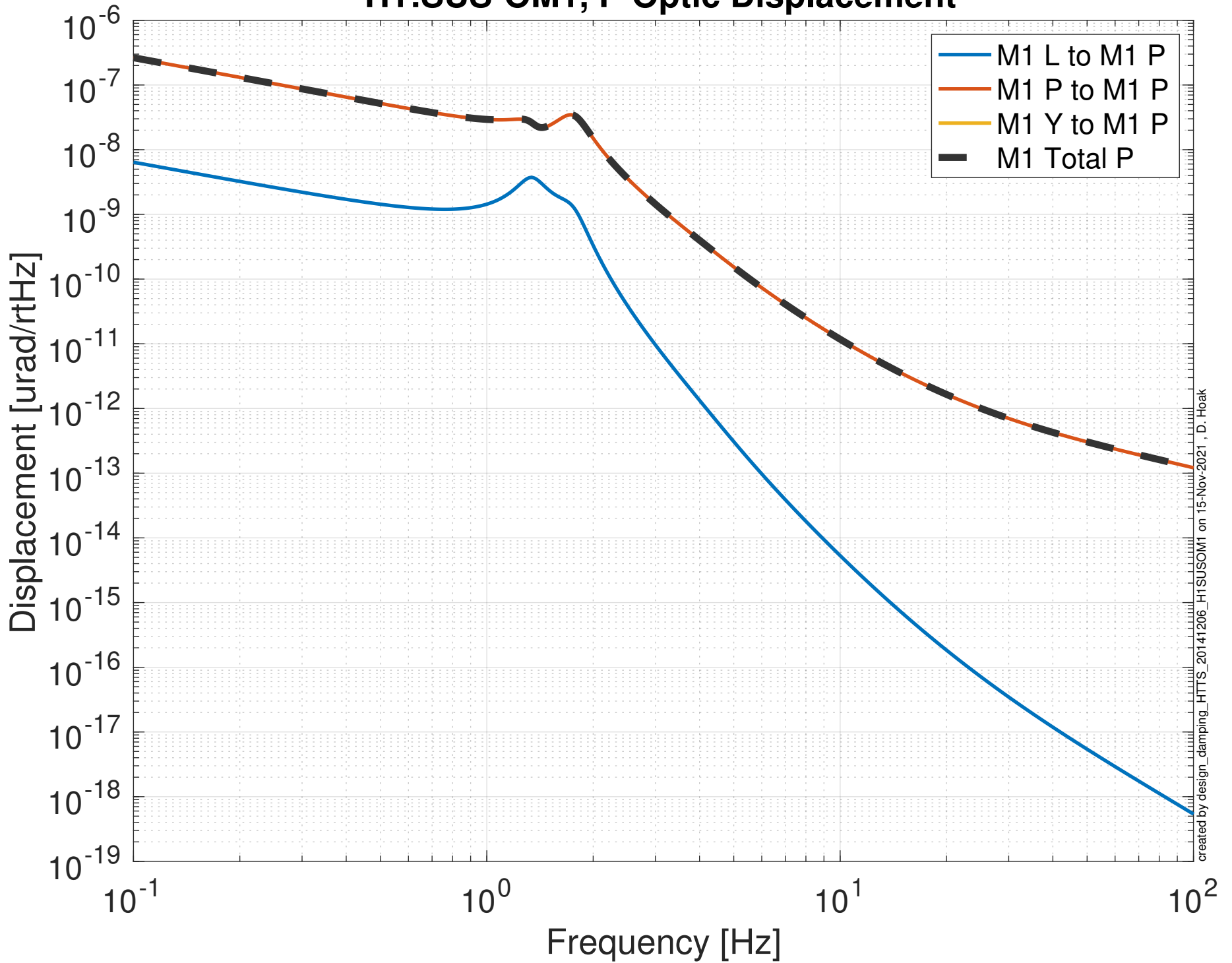


Global Control Transfer Functions to Optic

H1:SUS-OM1, P



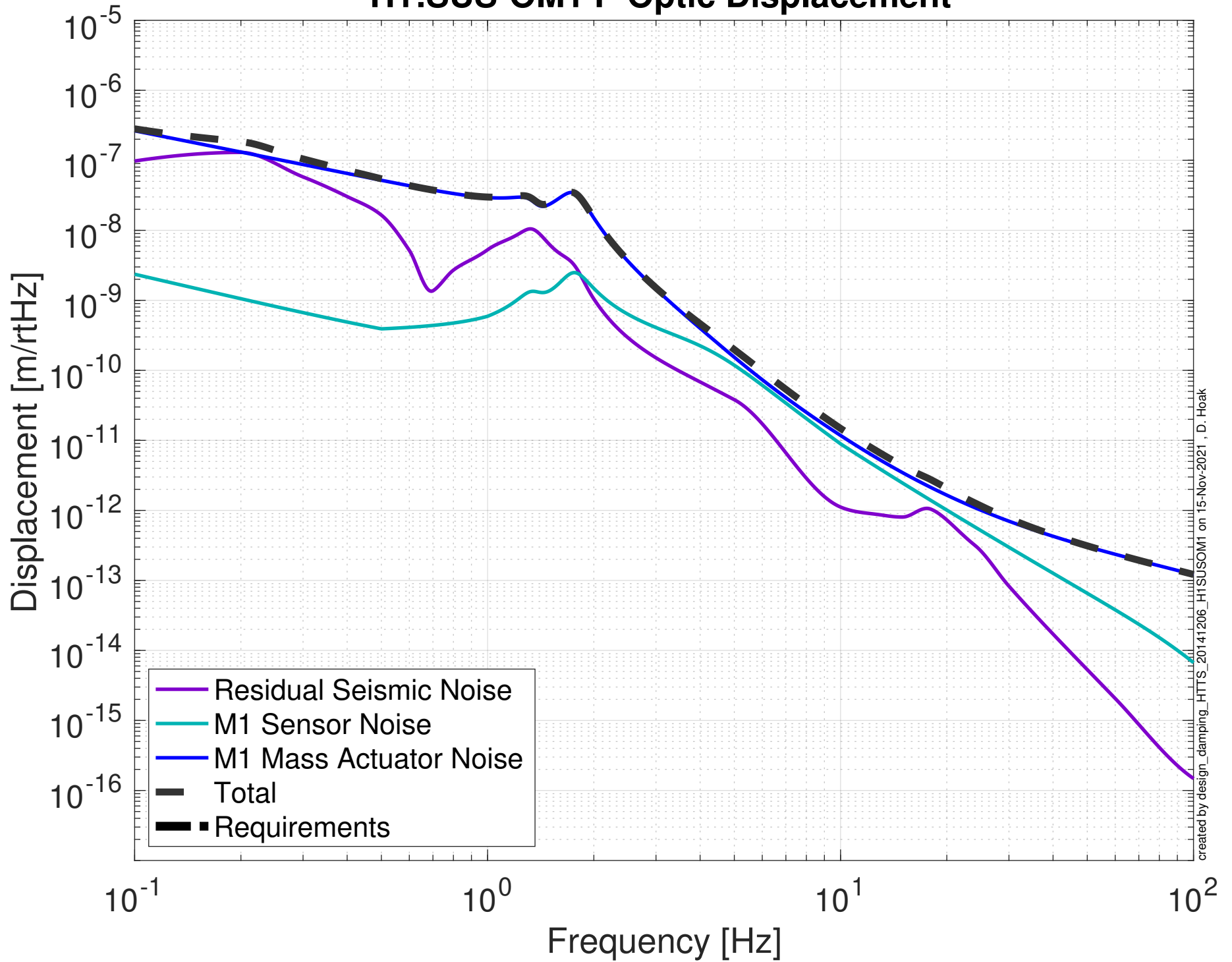
Projected M1 Mass Actuator > Optic Noise Budget H1:SUS-OM1, P Optic Displacement



created by design_damping_HTT5_20141206_H1SUSOM1 on 15-Nov-2021, D. Hoak

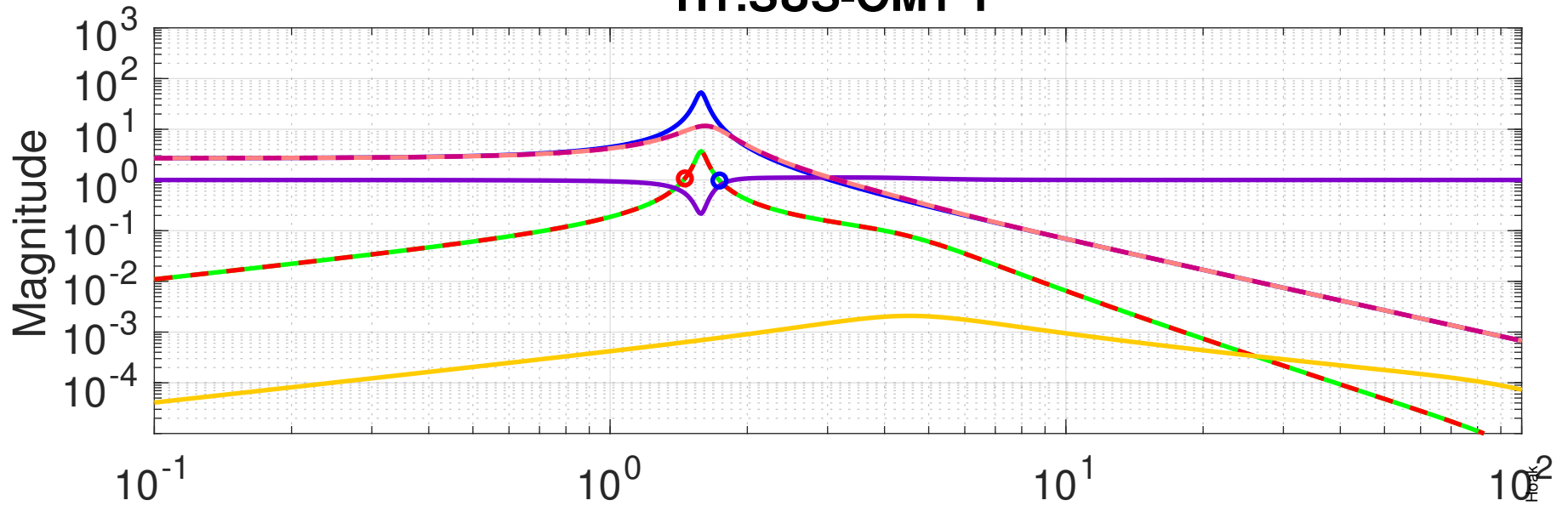
Damping Loop Performance

H1:SUS-OM1 P Optic Displacement

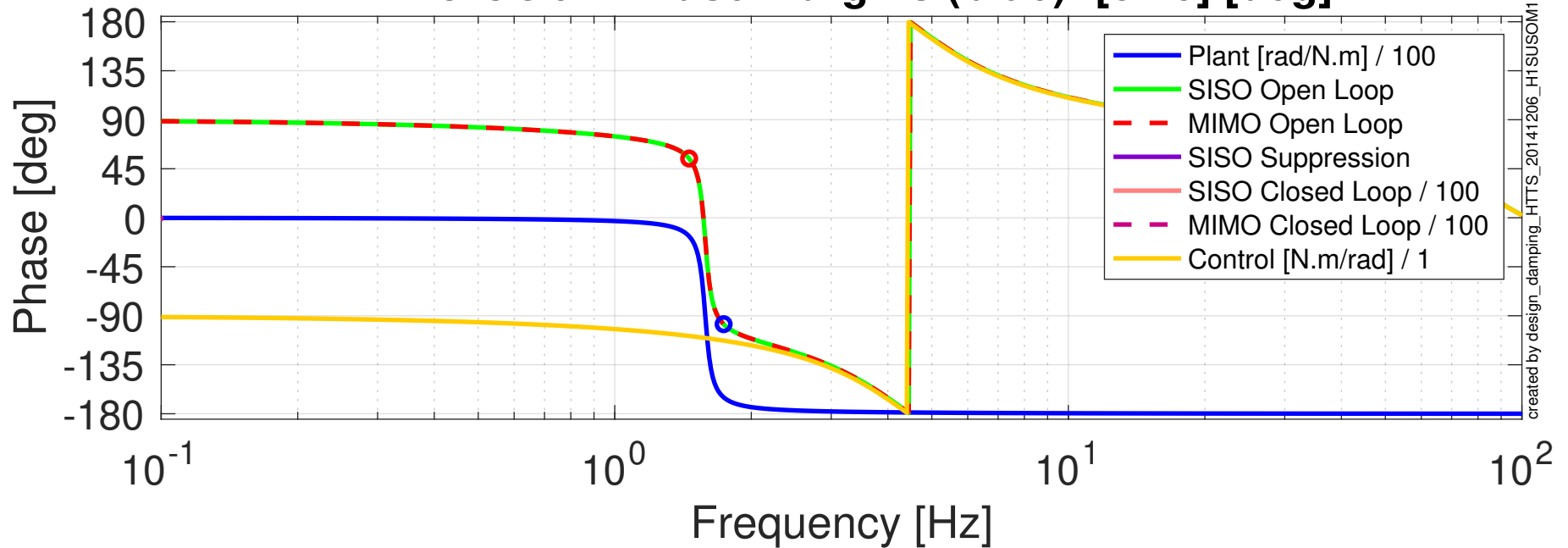


Damping Loop Design

H1:SUS-OM1 Y

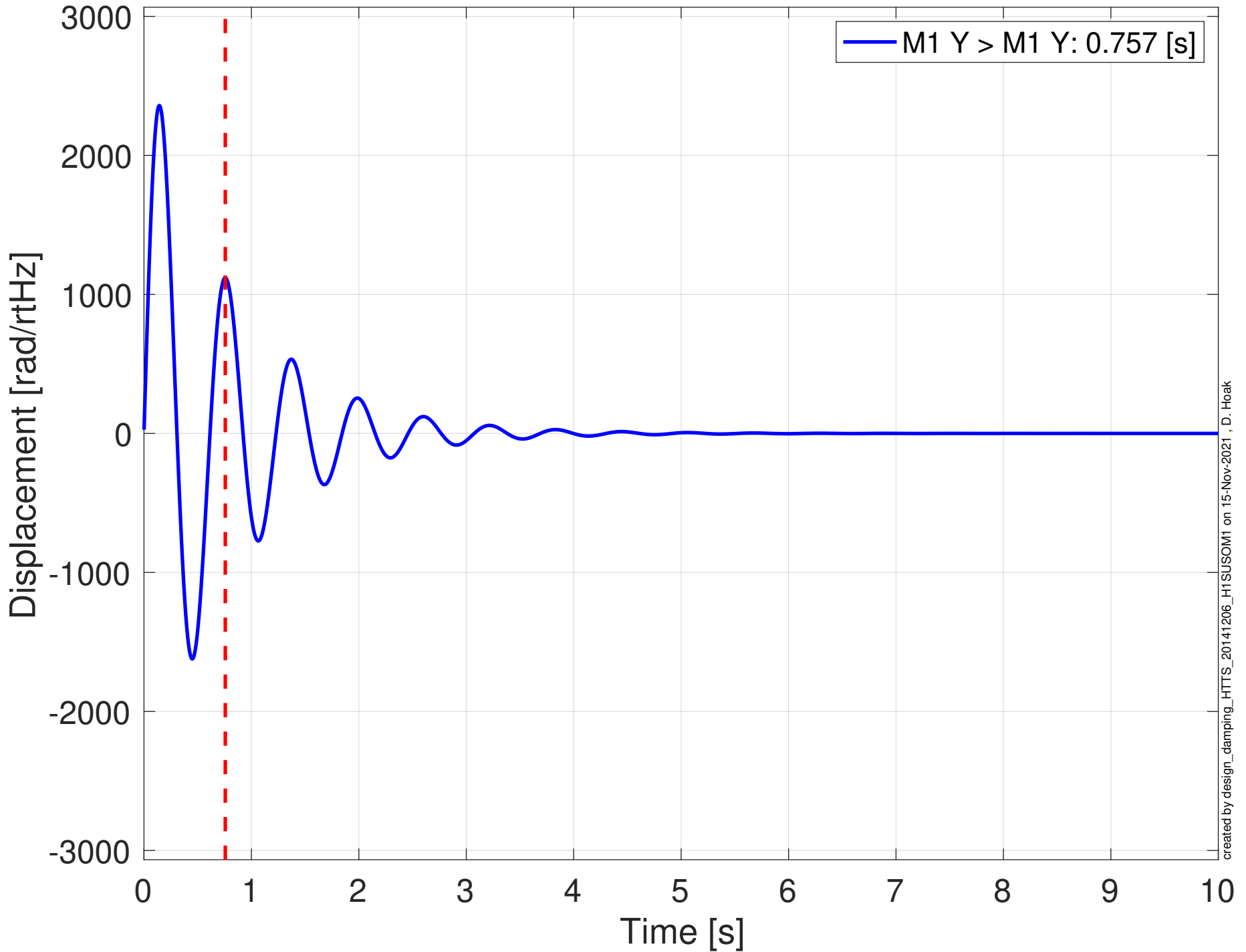


MIMO LUGF Phase Margins (red): [126] [deg]
MIMO UUGF Phase Margins (blue): [82.3] [deg]

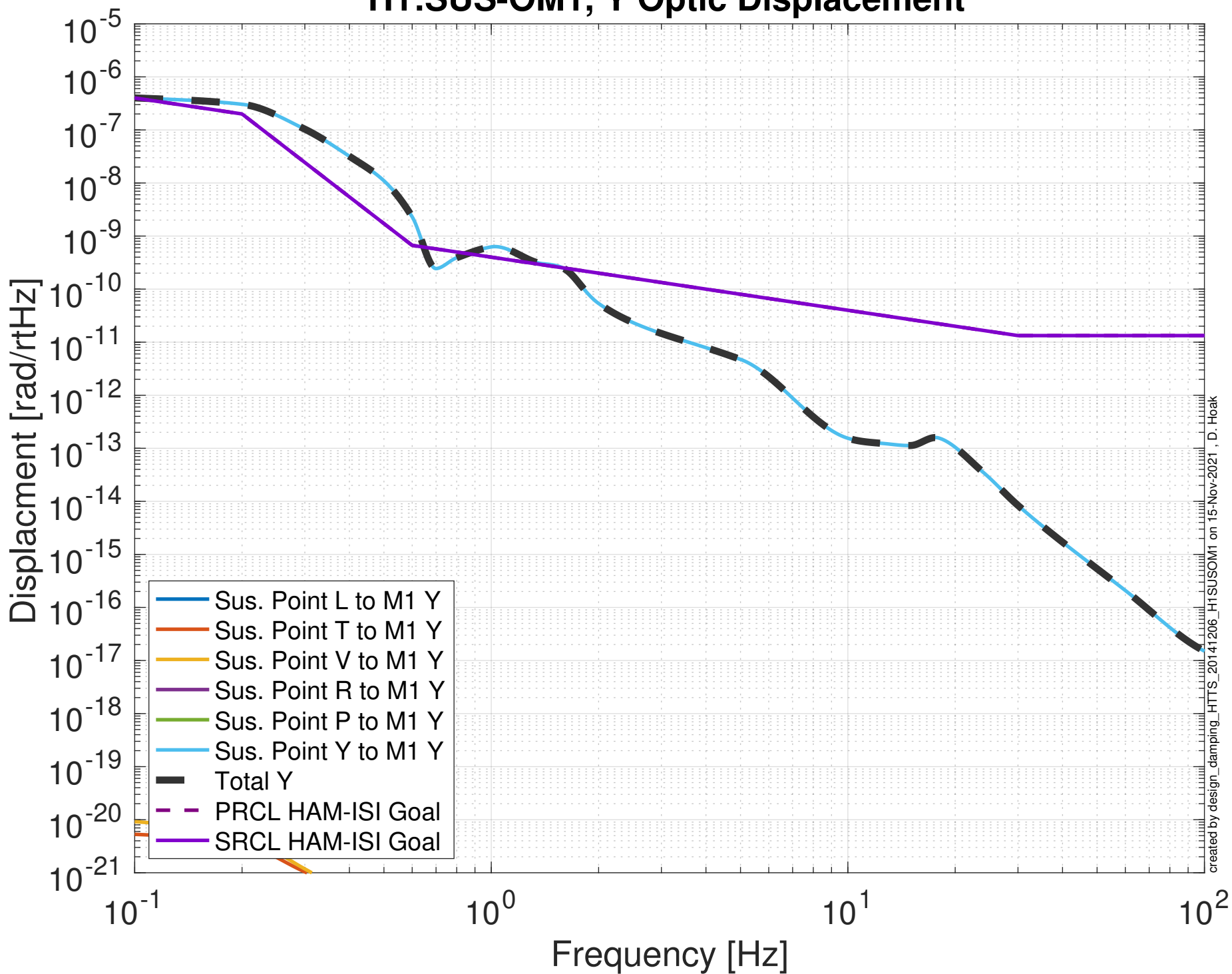


Damped Impulse Response

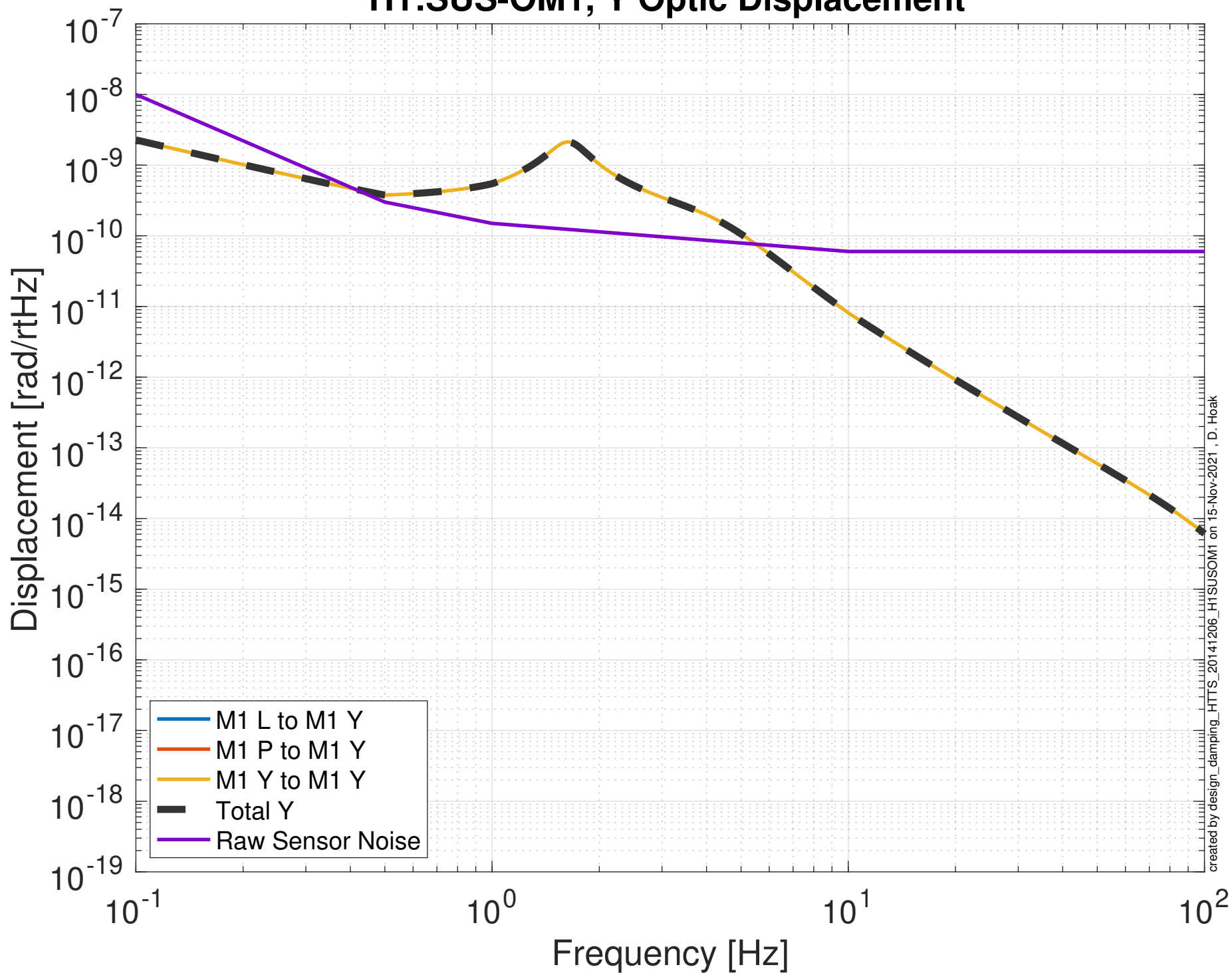
H1:SUS-OM1 Y



Projected Sus. Point > Optic Seismic Noise Budget H1:SUS-OM1, Y Optic Displacement

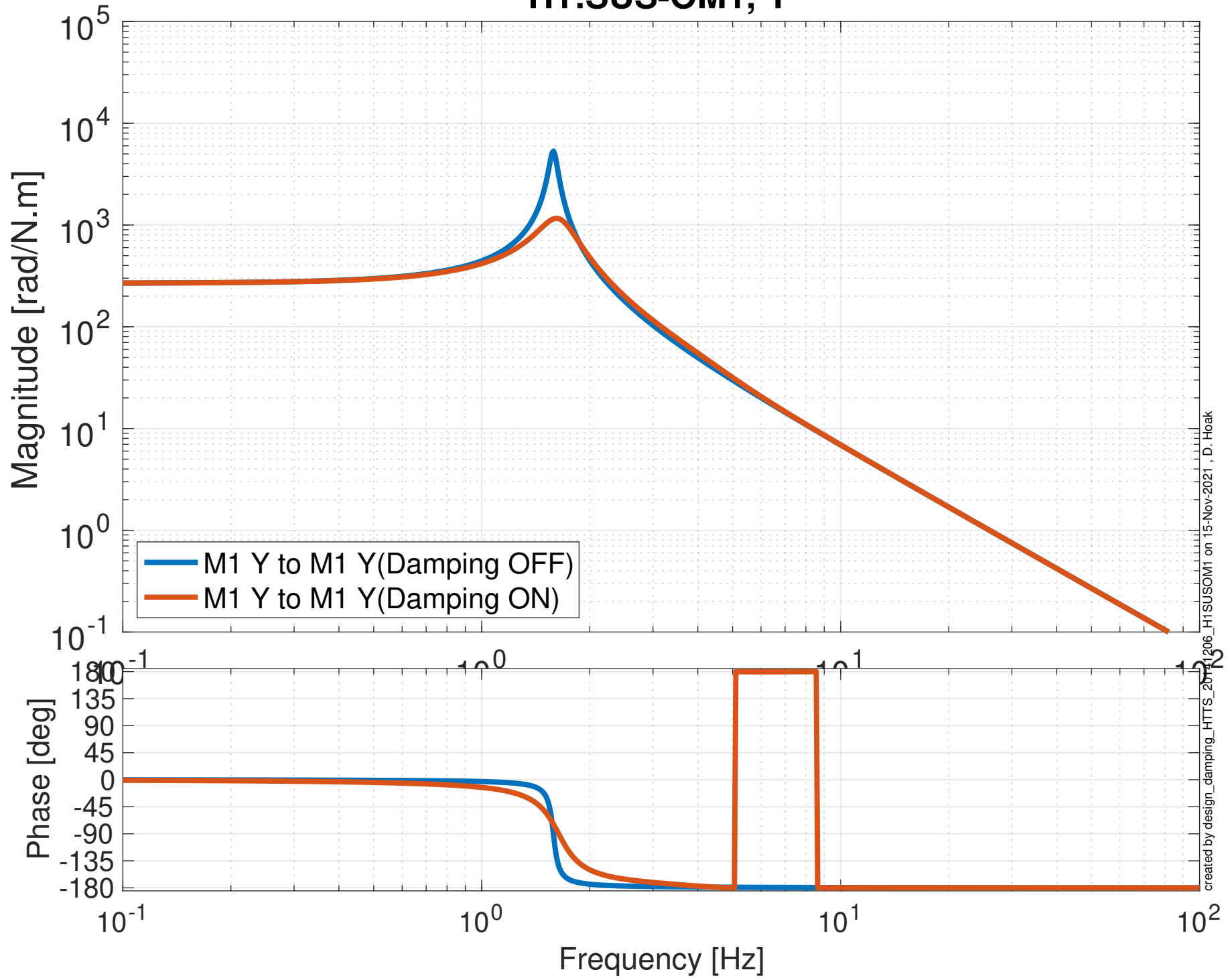


Projected Top Mass Sensor > Optic Noise Budget H1:SUS-OM1, Y Optic Displacement

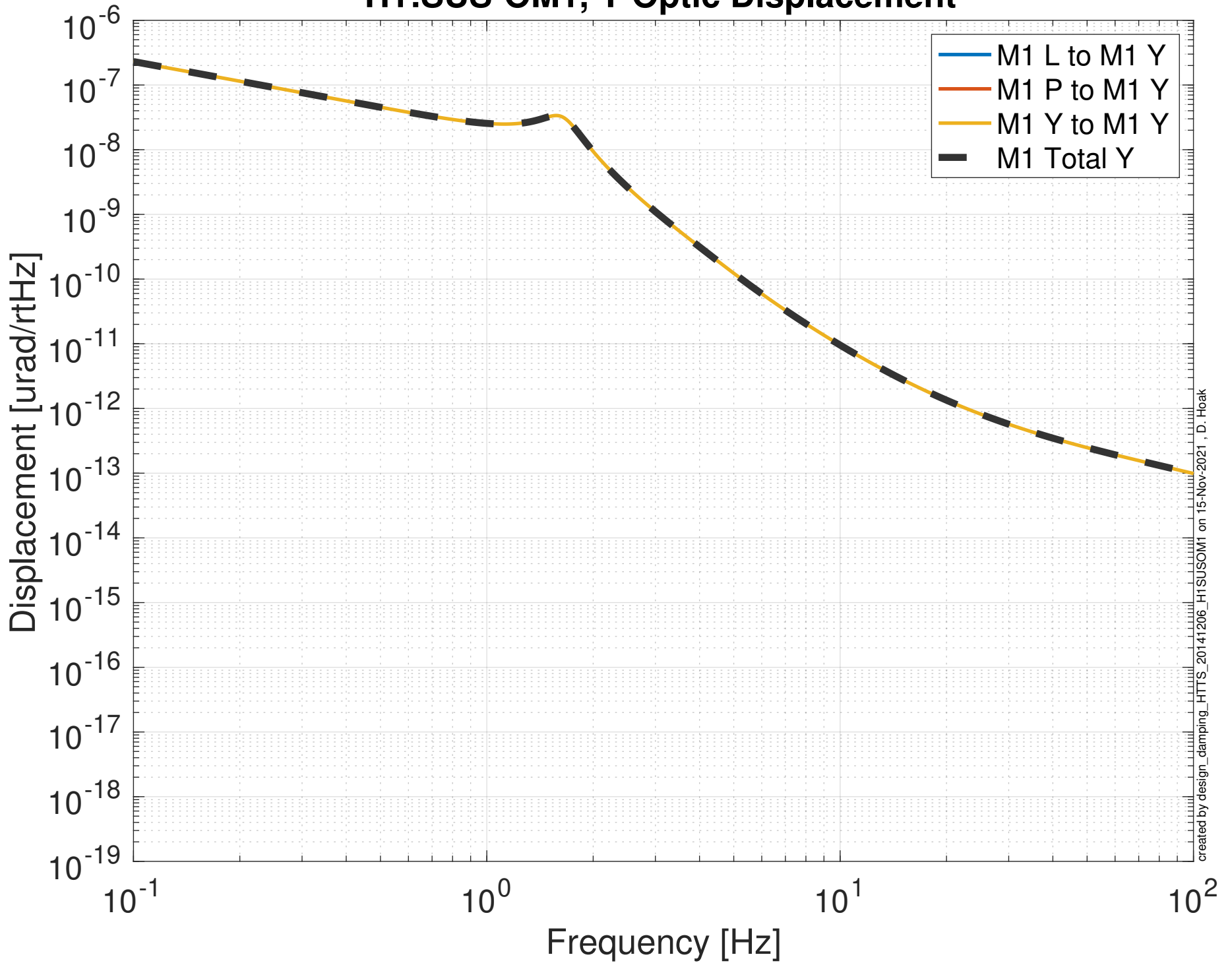


Global Control Transfer Functions to Optic

H1:SUS-OM1, Y



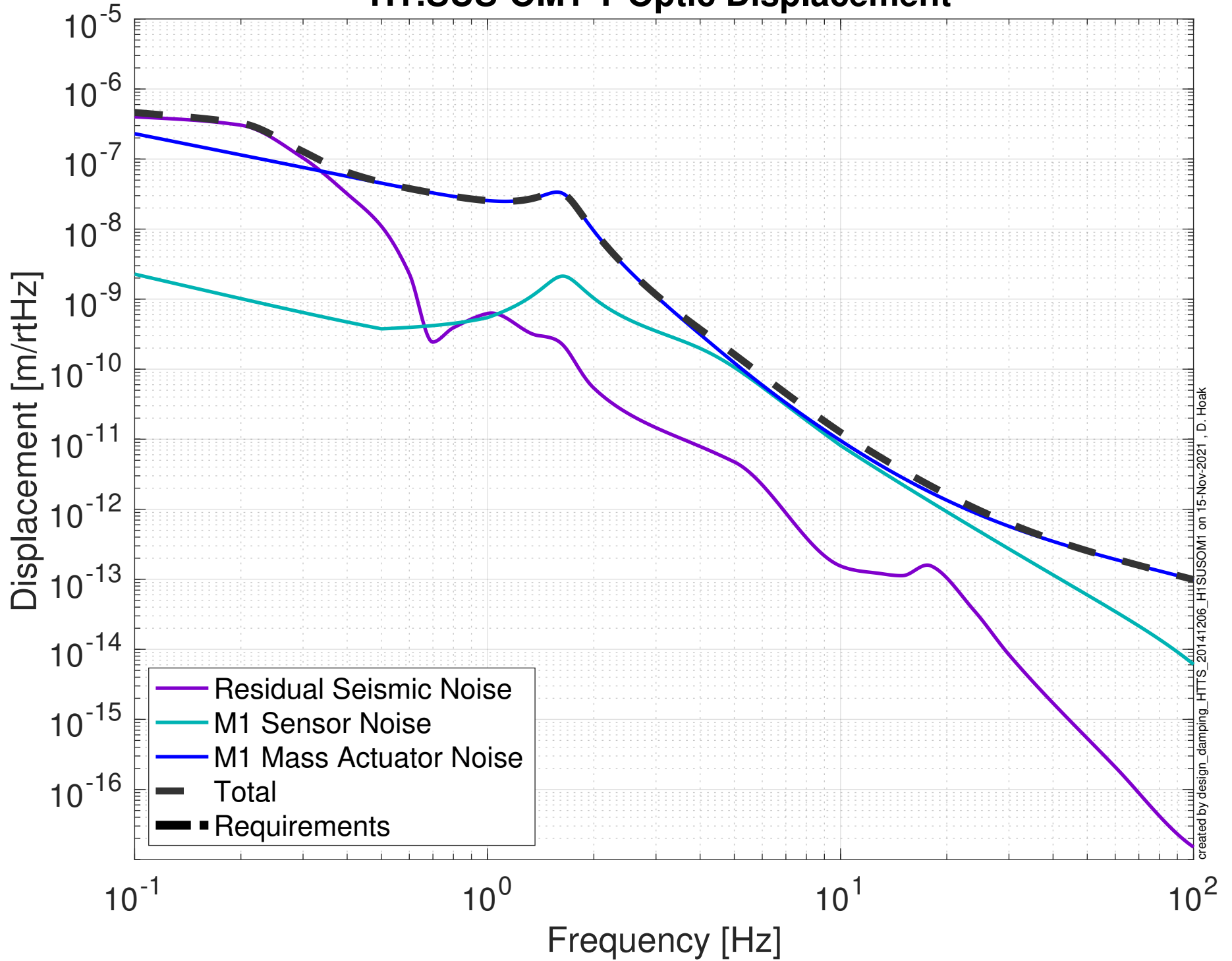
Projected M1 Mass Actuator > Optic Noise Budget H1:SUS-OM1, Y Optic Displacement



created by design_damping_HTT5_20141206_H1SUSOM1 on 15-Nov-2021, D. Hoak

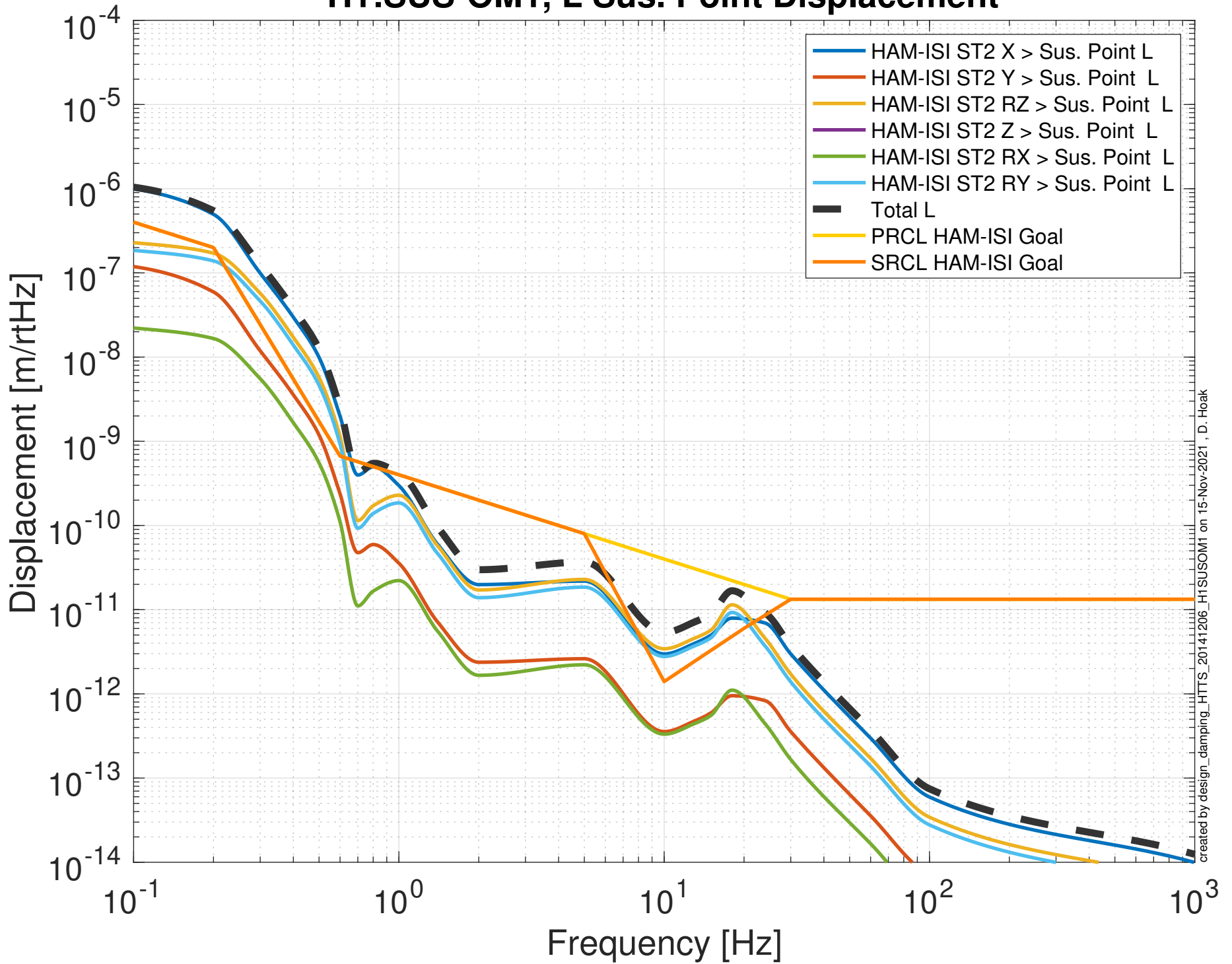
Damping Loop Performance

H1:SUS-OM1 Y Optic Displacement

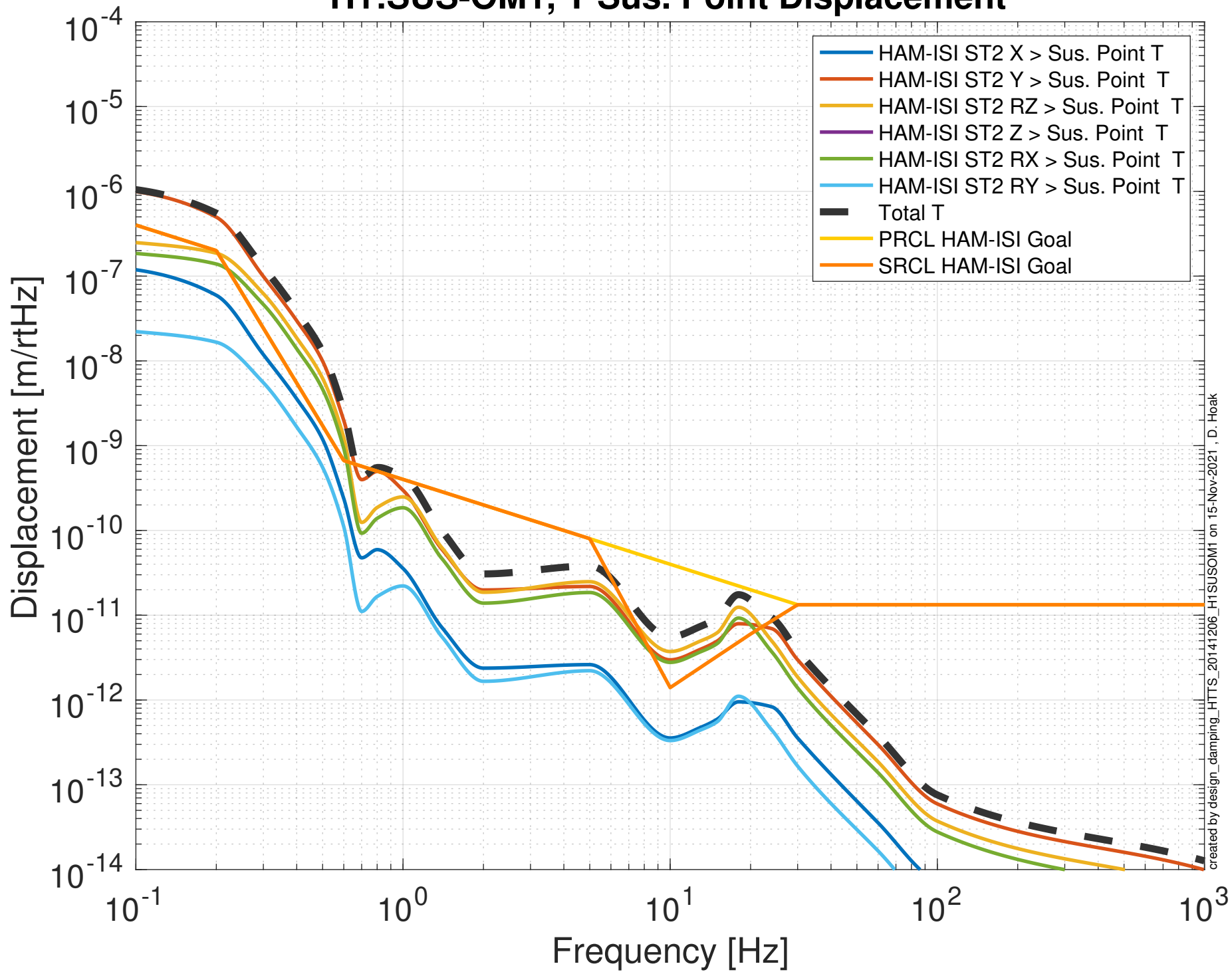


created by design_damping_H1TS_20141206_H1SUSOM1 on 15-Nov-2021, D. Hoak

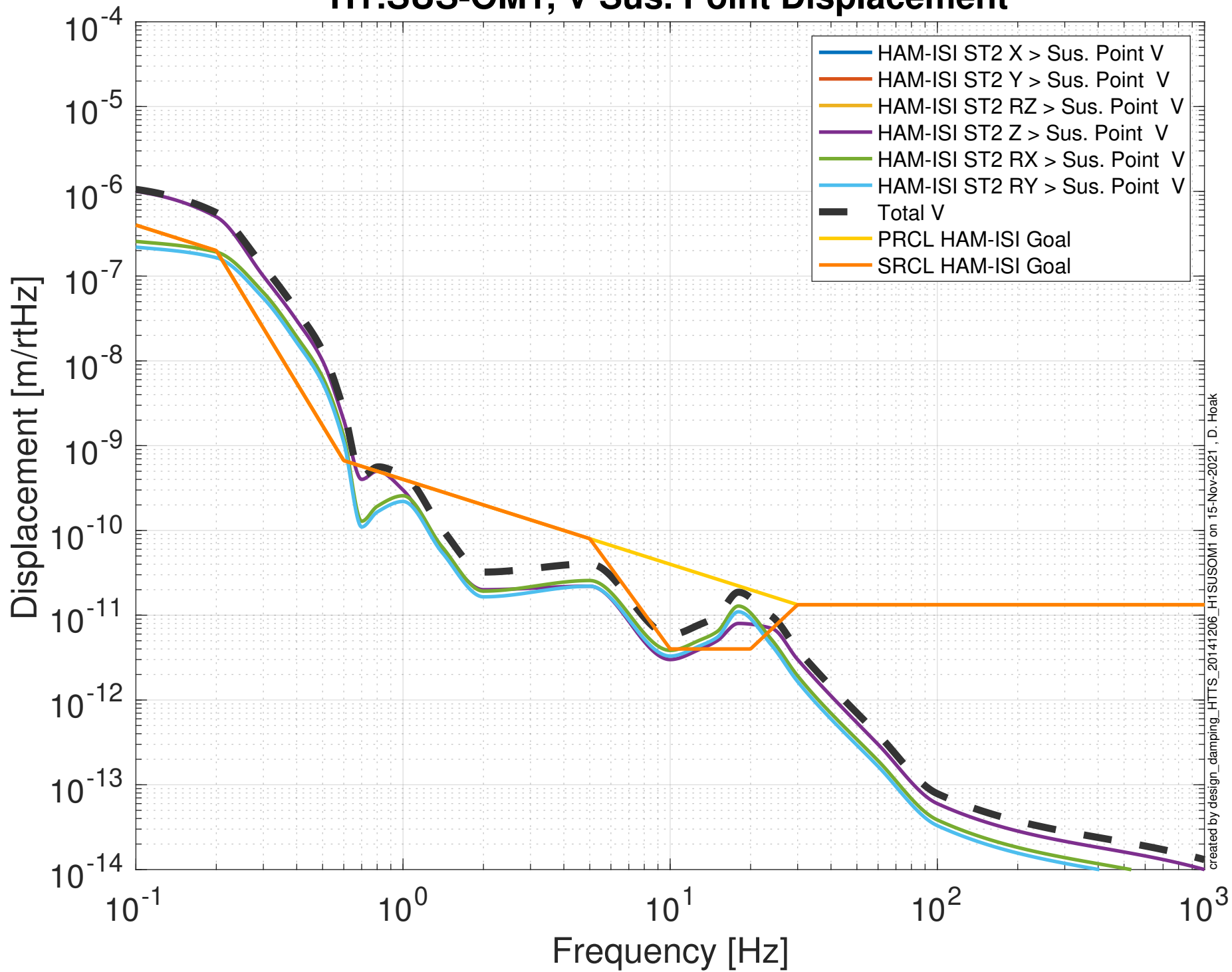
Projected ISI Seismic Noise Budget H1:SUS-OM1, L Sus. Point Displacement



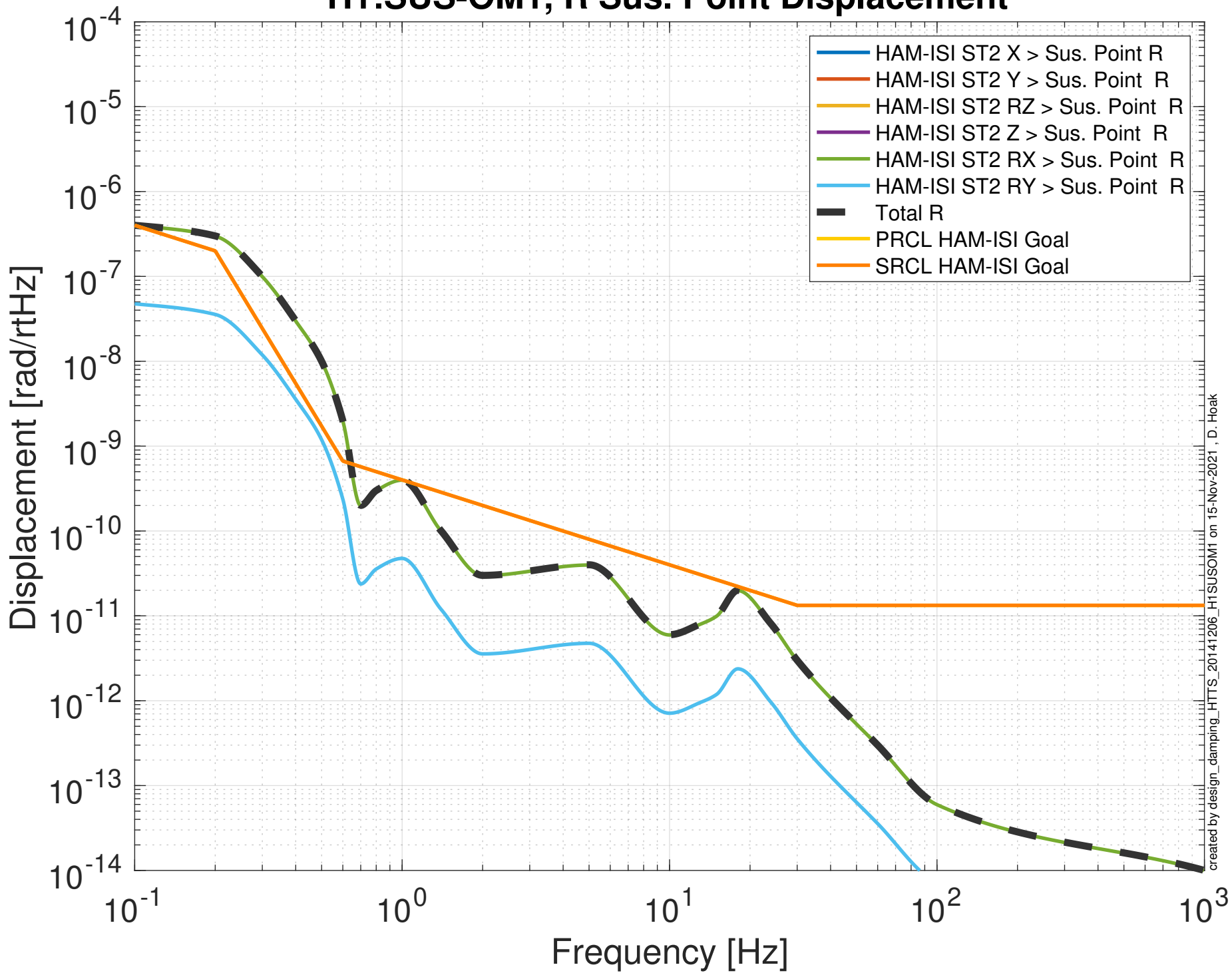
Projected ISI Seismic Noise Budget H1:SUS-OM1, T Sus. Point Displacement



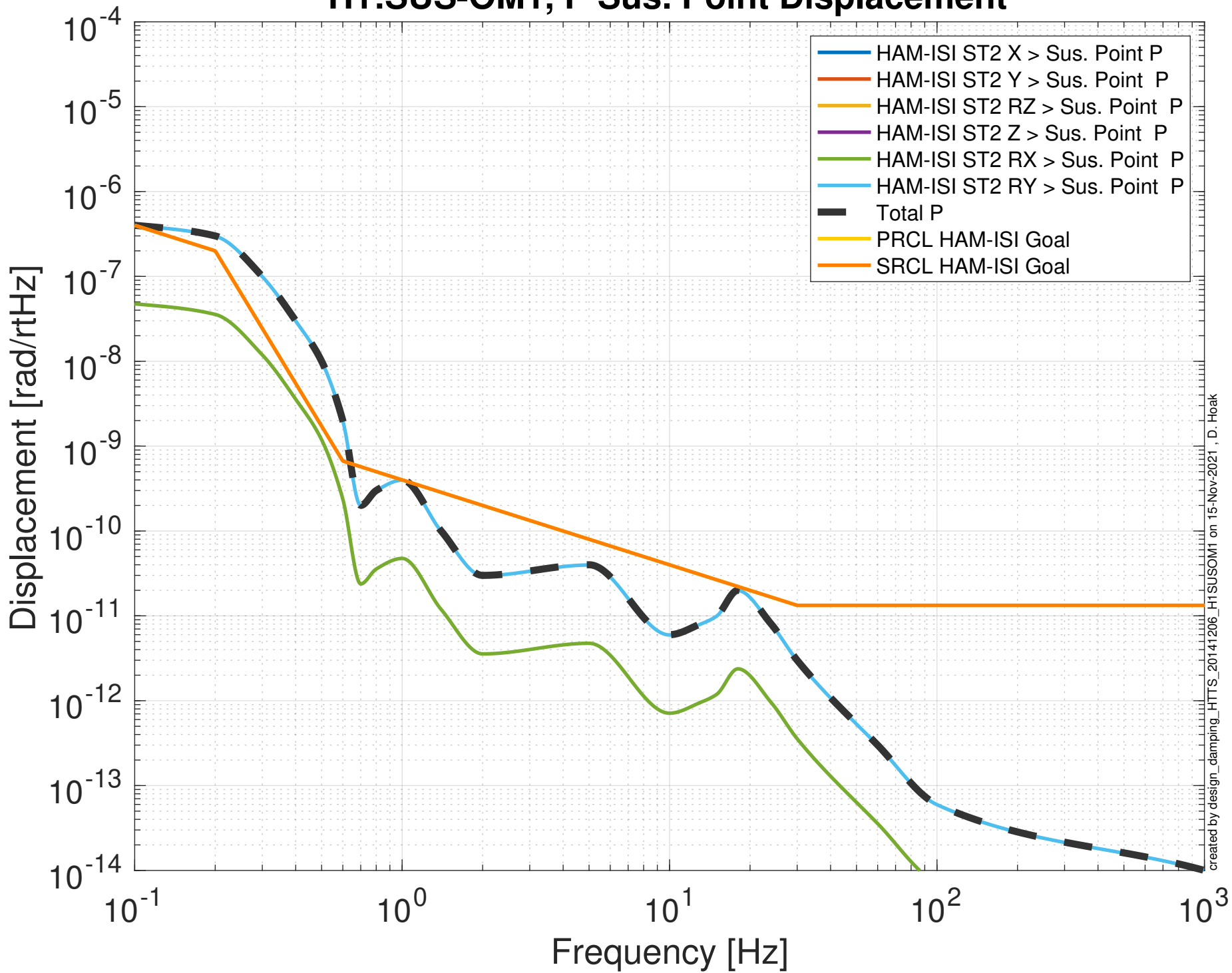
Projected ISI Seismic Noise Budget H1:SUS-OM1, V Sus. Point Displacement



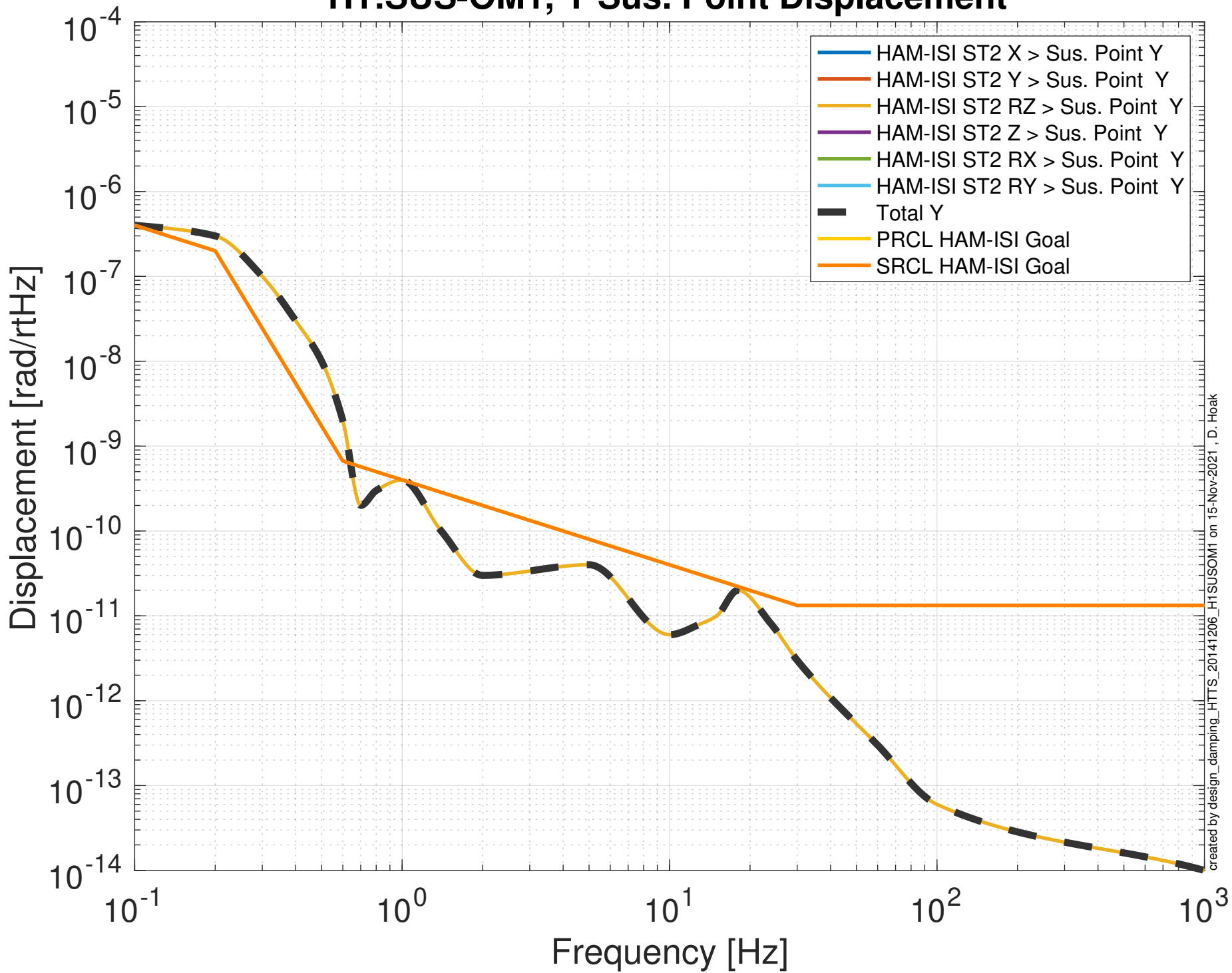
Projected ISI Seismic Noise Budget H1:SUS-OM1, R Sus. Point Displacement



Projected ISI Seismic Noise Budget H1:SUS-OM1, P Sus. Point Displacement



Projected ISI Seismic Noise Budget H1:SUS-OM1, Y Sus. Point Displacement



Projected Input Top Mass Sensor Noise Budget

