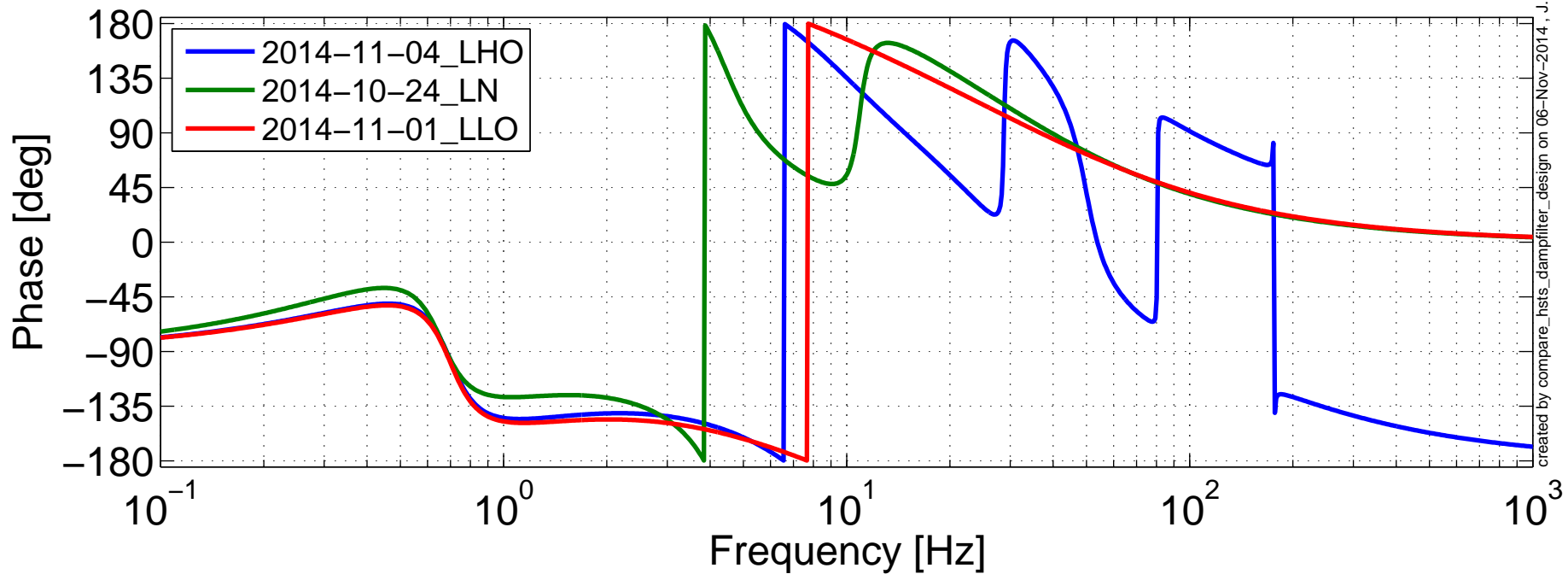
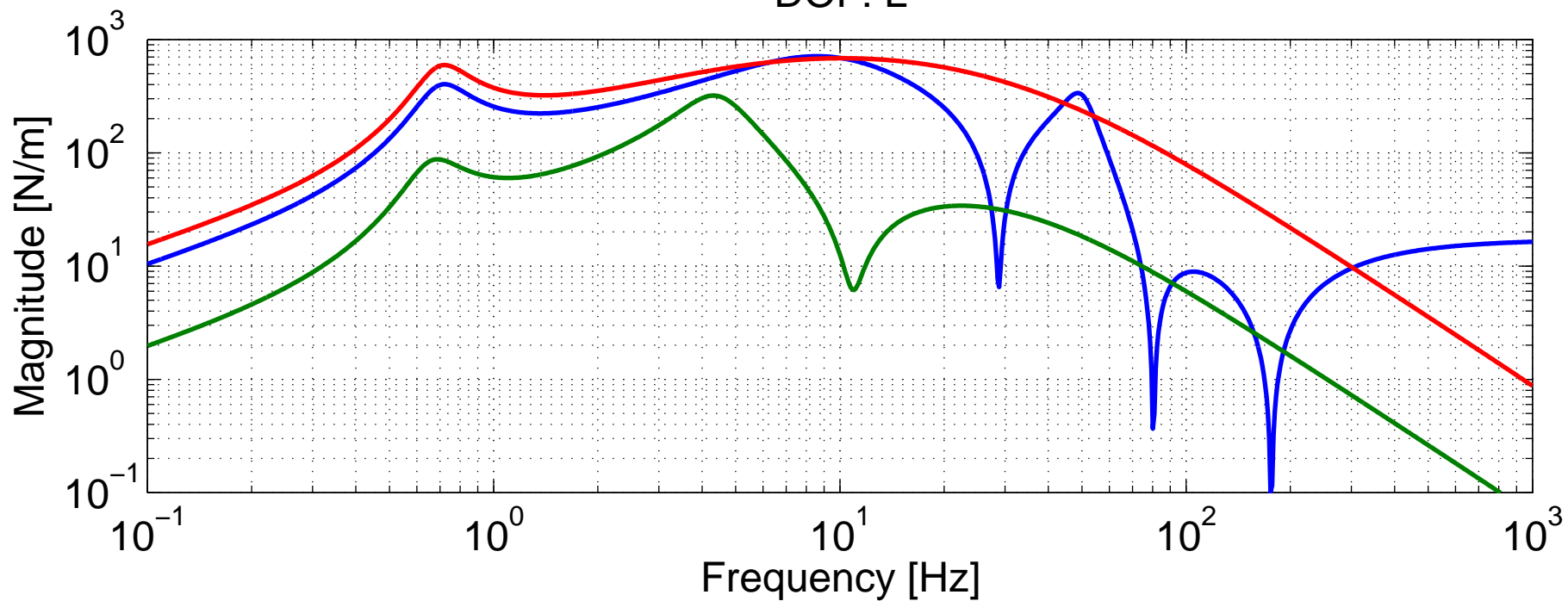
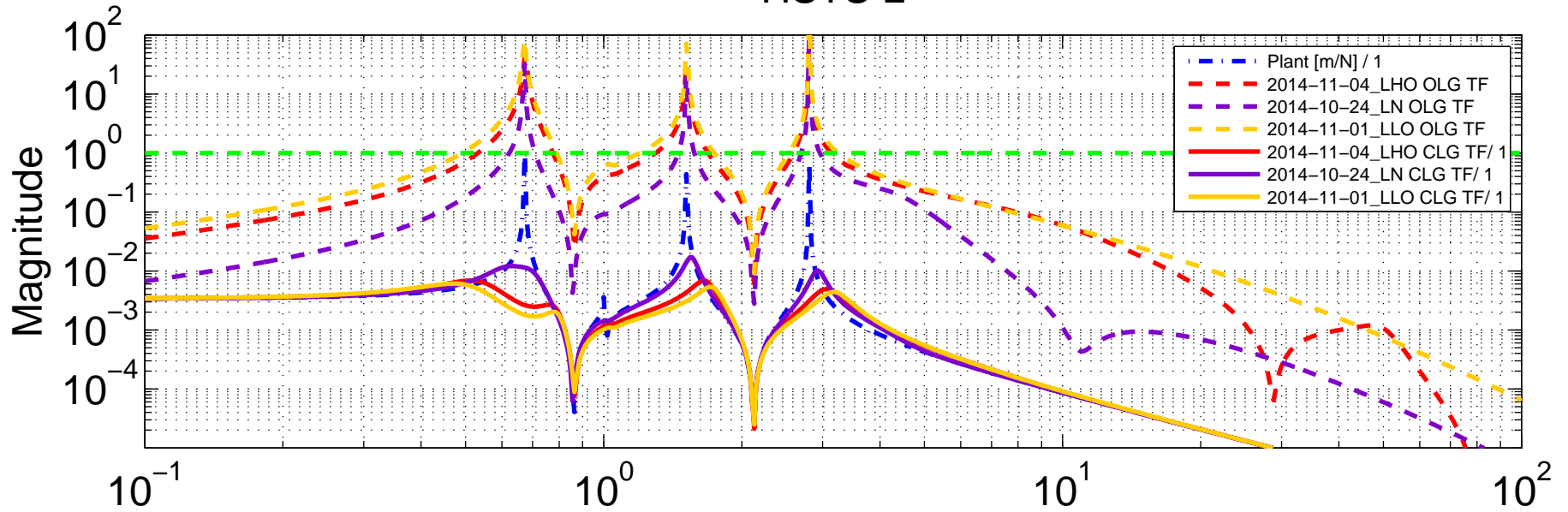


# Calibrated Damping Filter Comparison

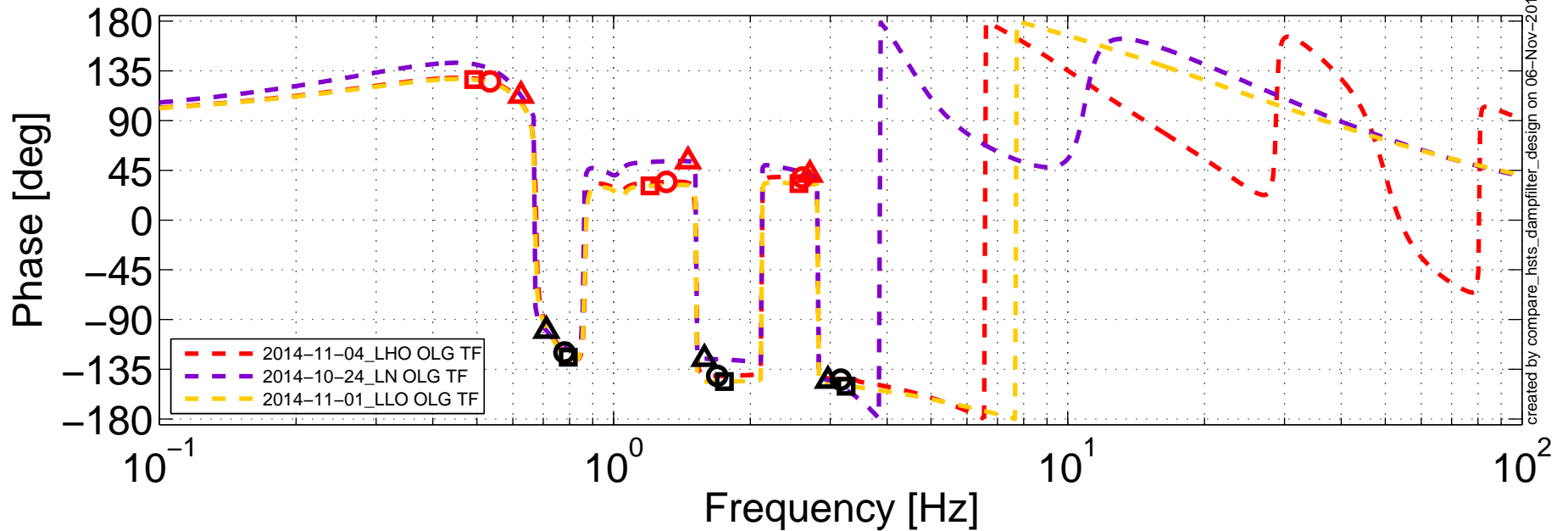
DOF: L



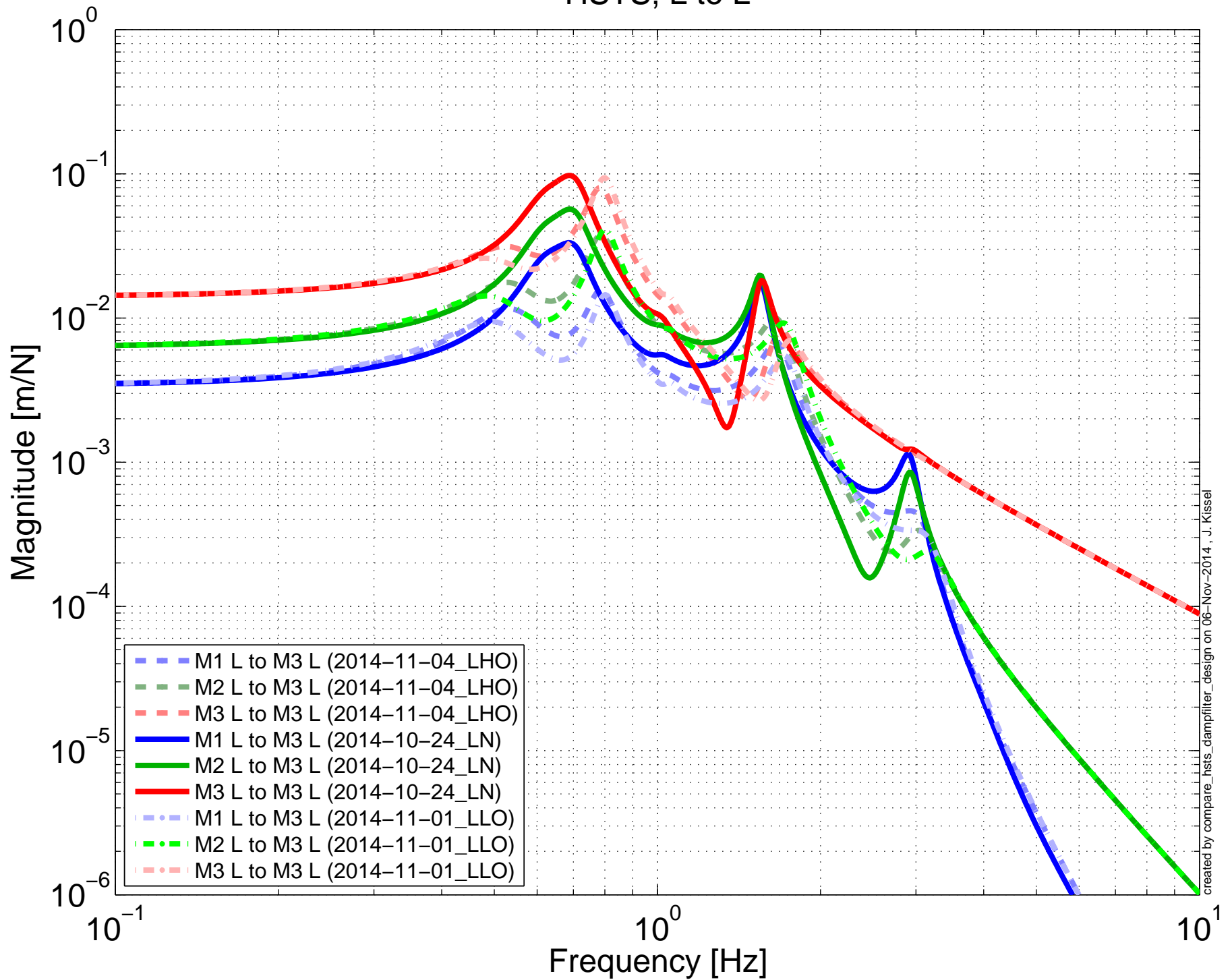
# Damping Loop Design Comparison HSTS L



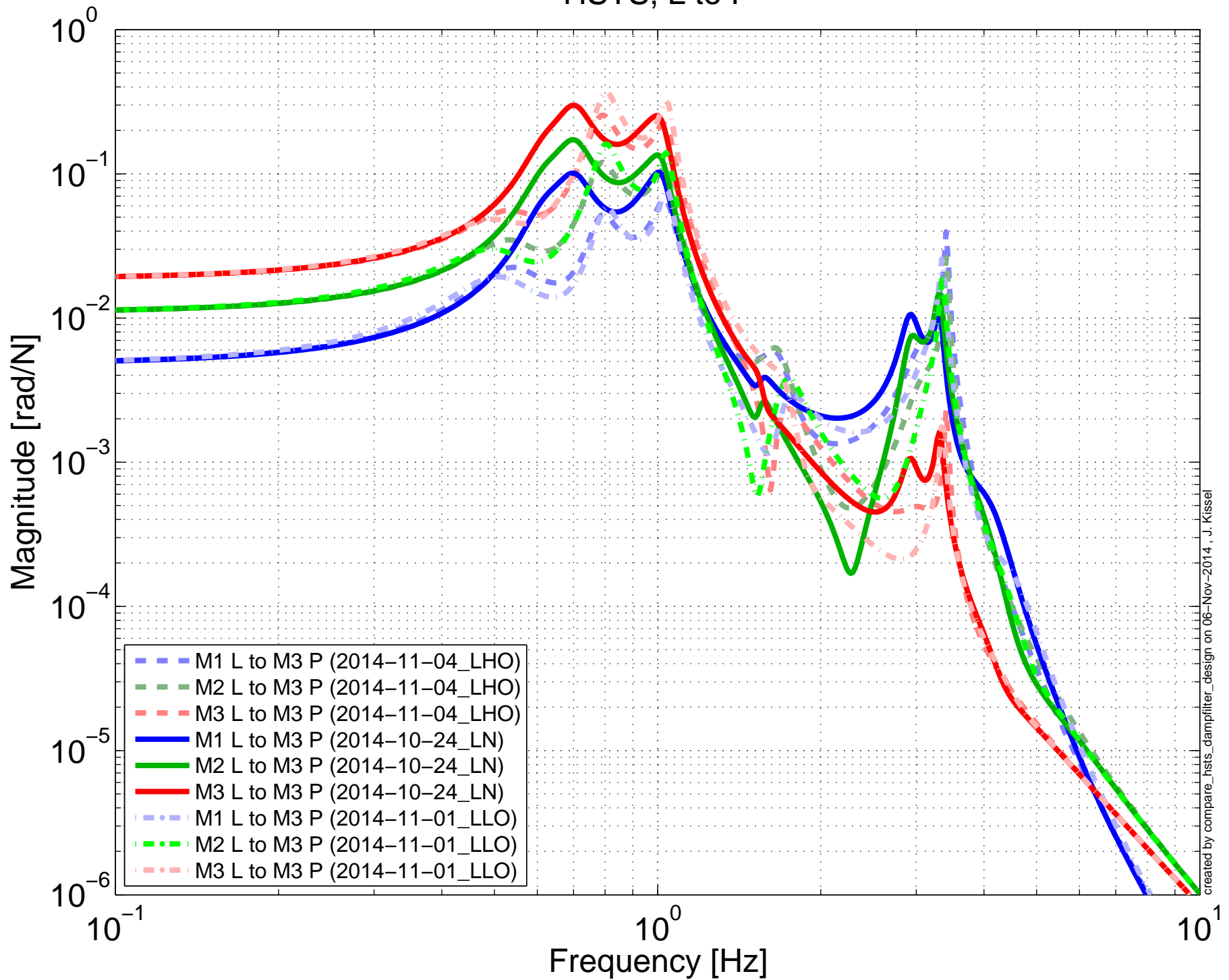
First LUGF [o,^,s] : [LHO, LN, LLO] : [54.6, 67.4, 52.9] [deg]  
 Last UUGF [o,^,s] : [LHO, LN, LLO] : [35.7, 34.9, 29.7] [deg]



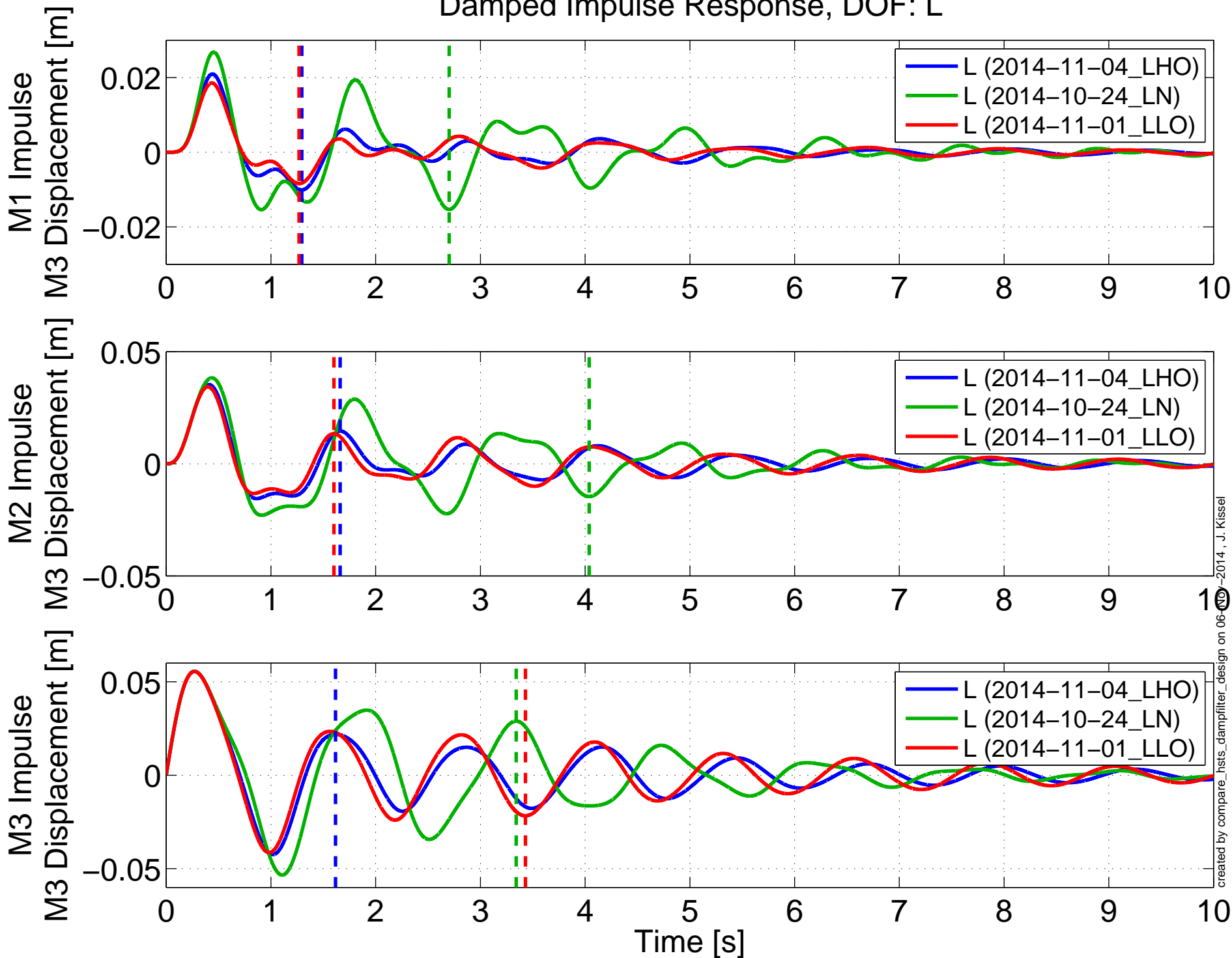
# Global Control Transfer Functions to Optic HSTS, L to L



# Global Control Transfer Functions to Optic HSTS, L to P

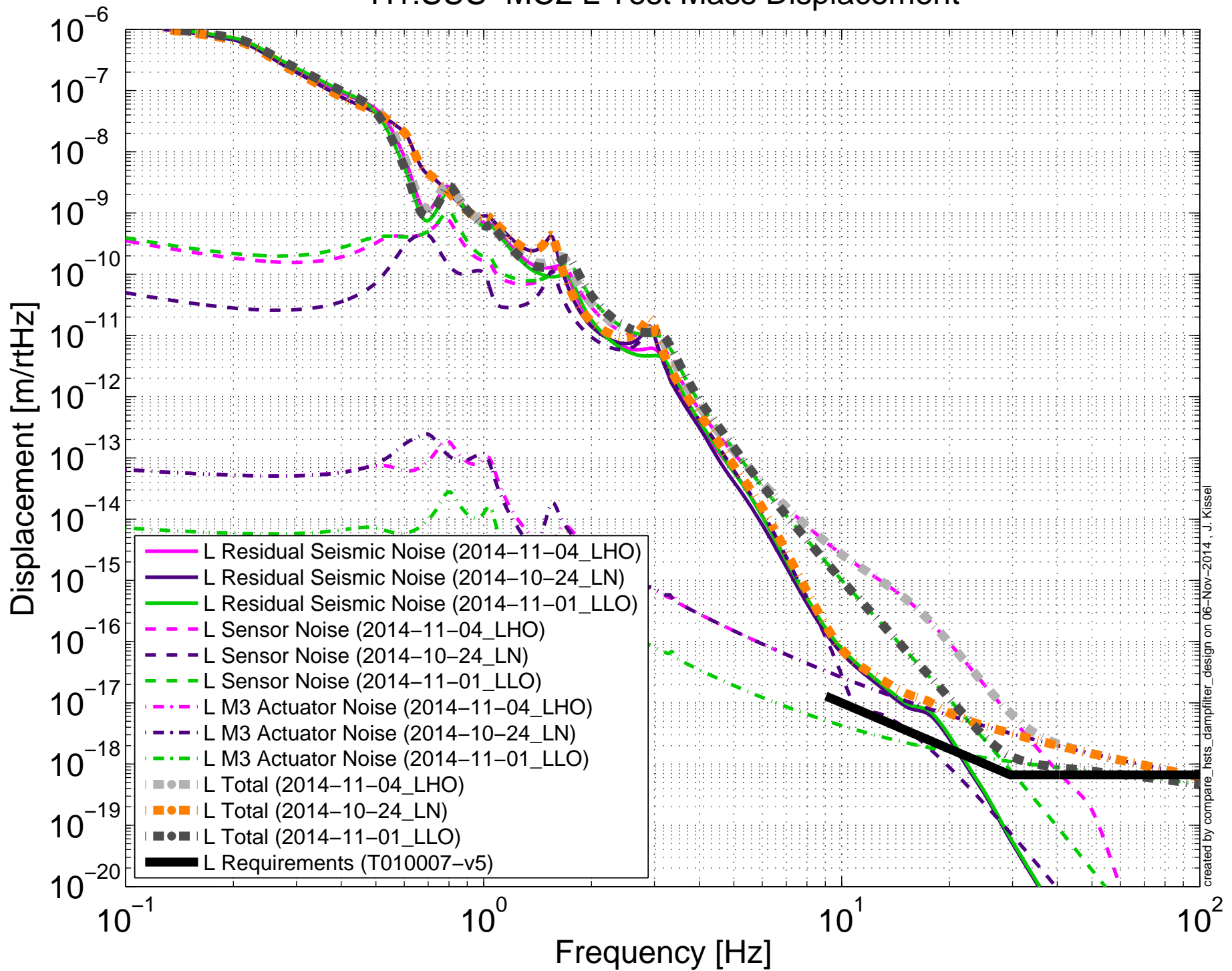


# Damped Impulse Response, DOF: L



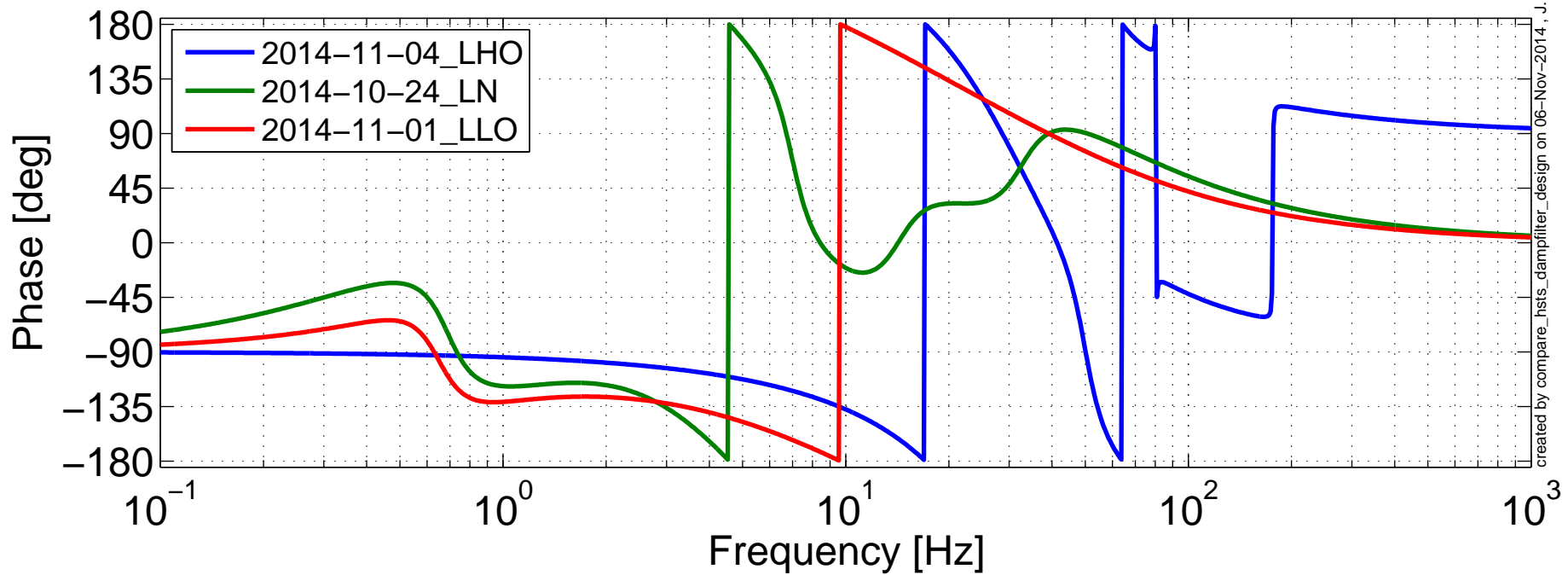
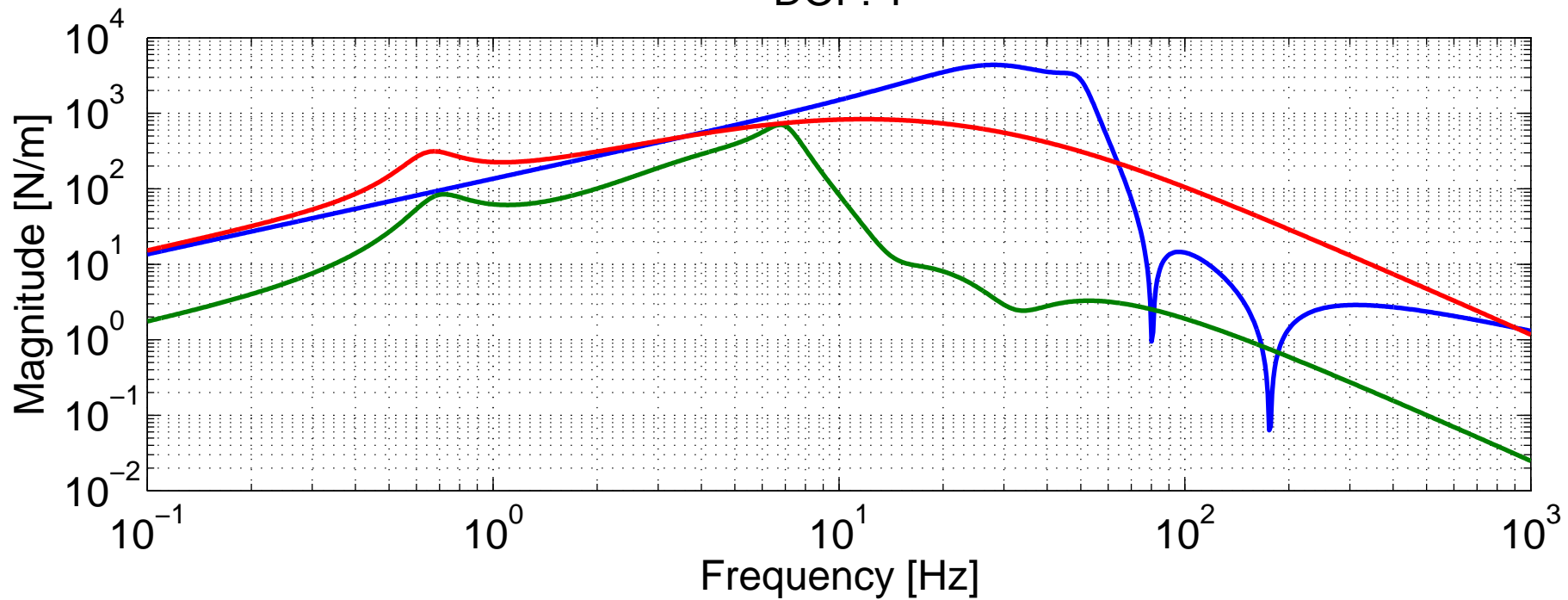
# Damping Loop Performance Comparison

## H1:SUS-MC2 L Test Mass Displacement

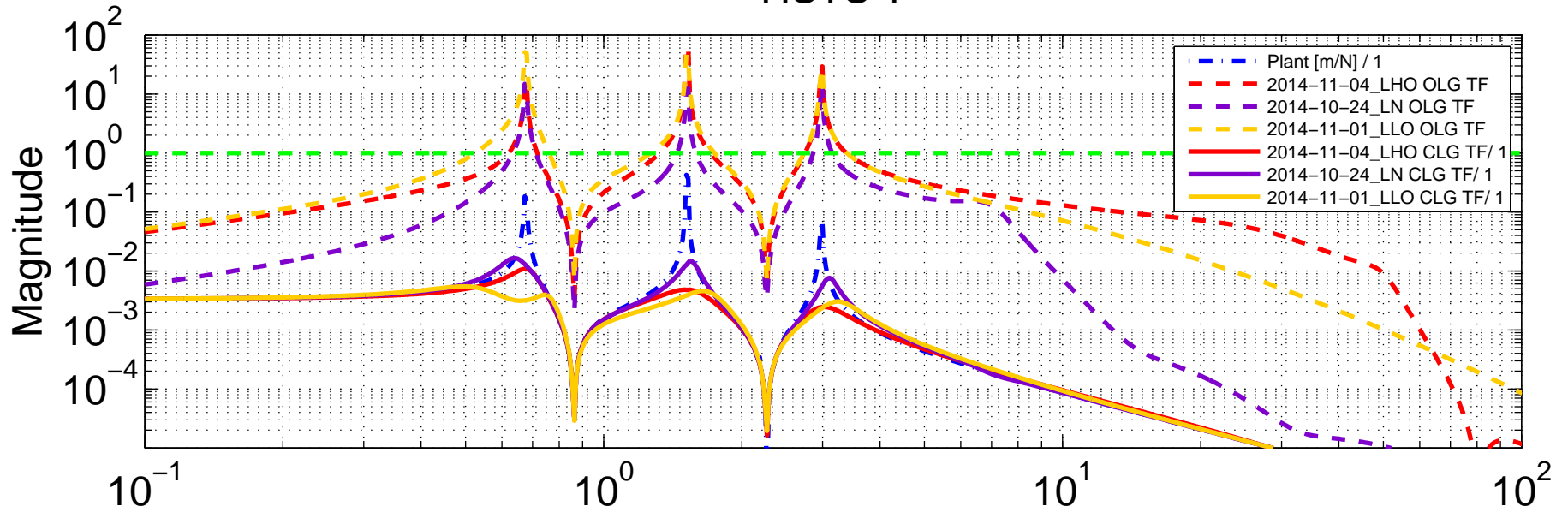


# Calibrated Damping Filter Comparison

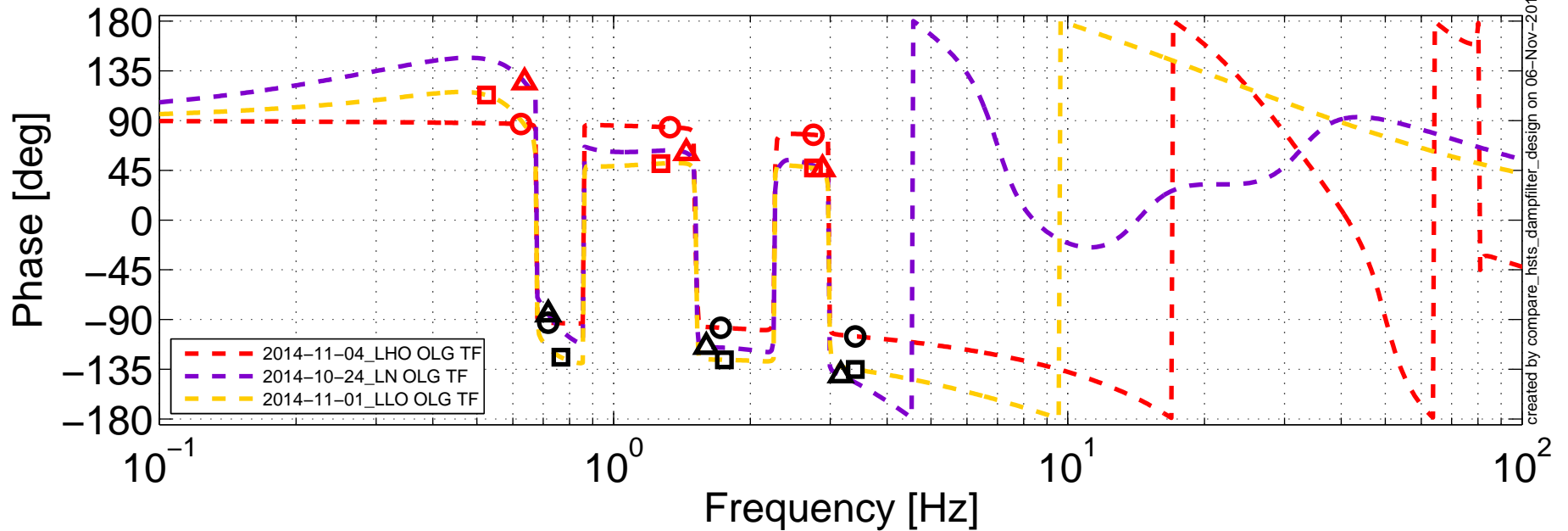
DOF: T



# Damping Loop Design Comparison HSTS T

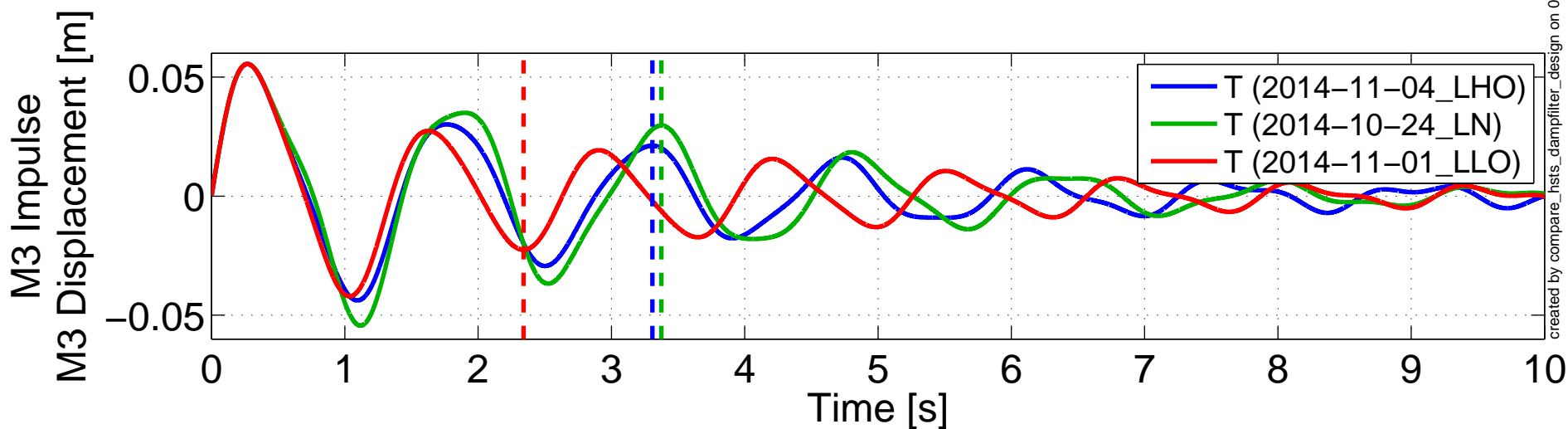
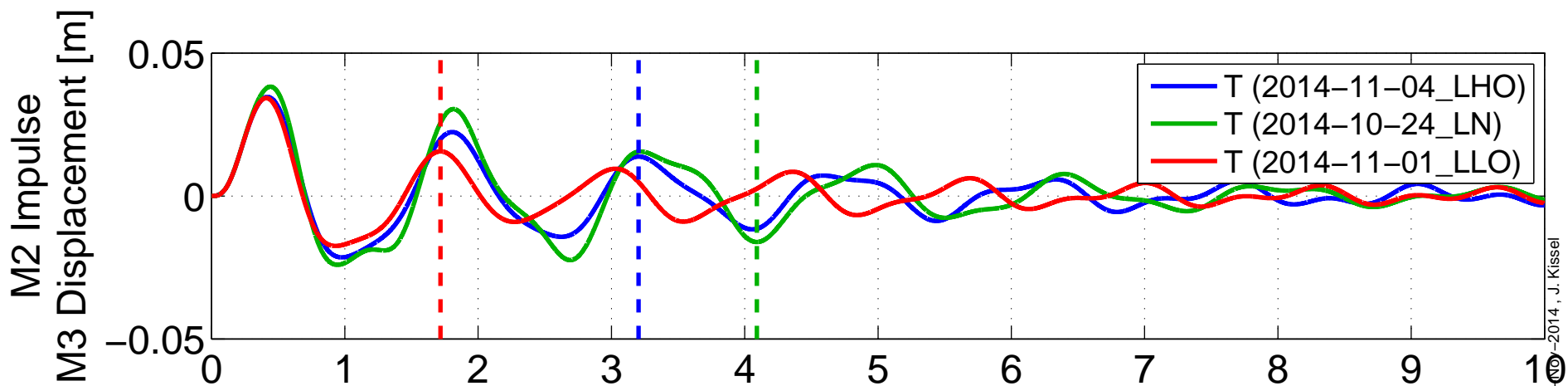
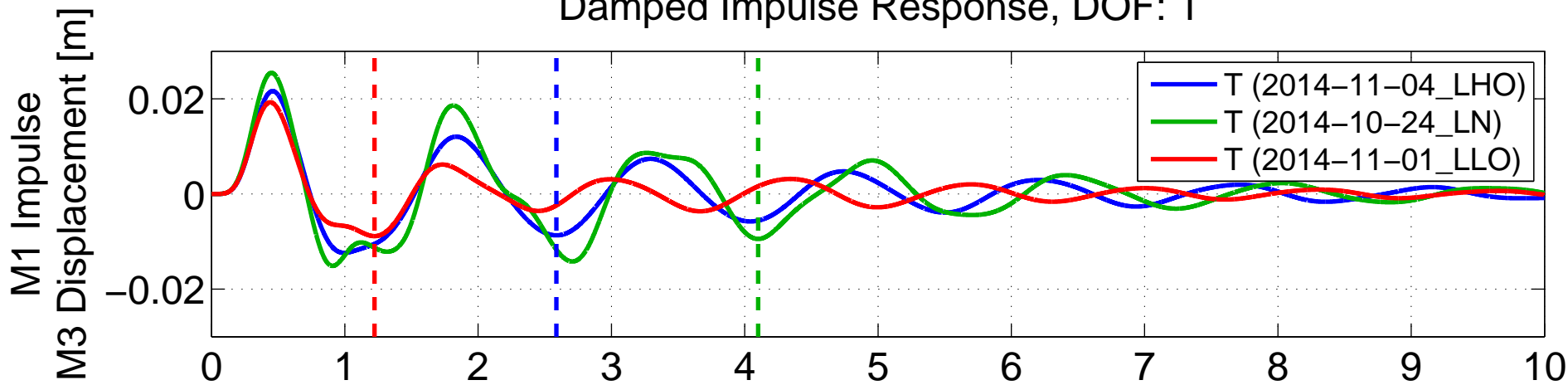


First LUGF  $[\omega, \phi, s]$  : [LHO, LN, LLO] : [93.1, 55.3, 66.9] [deg]  
 Last UUGF  $[\omega, \phi, s]$  : [LHO, LN, LLO] : [74.8, 39.7, 44.9] [deg]



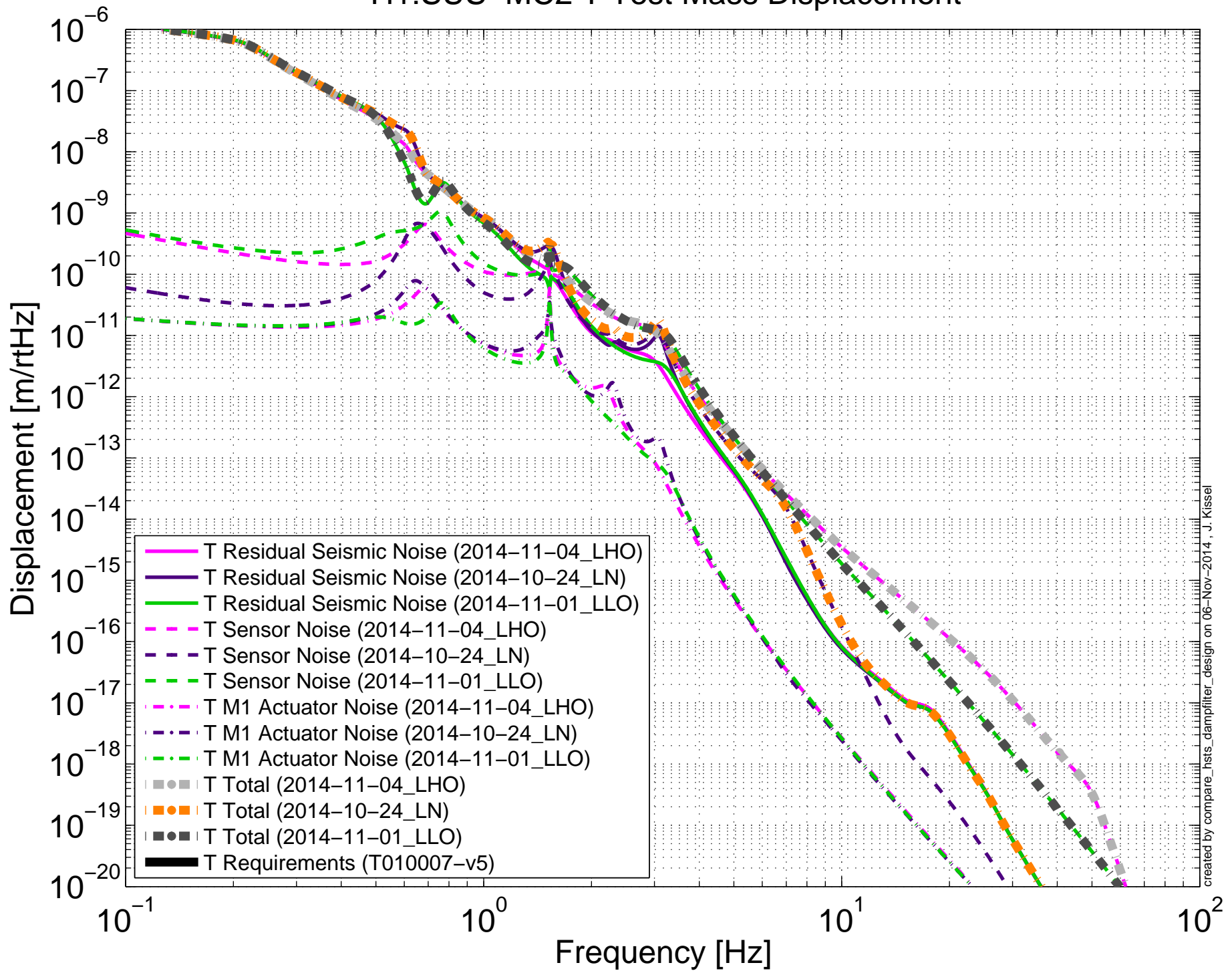


# Damped Impulse Response, DOF: T



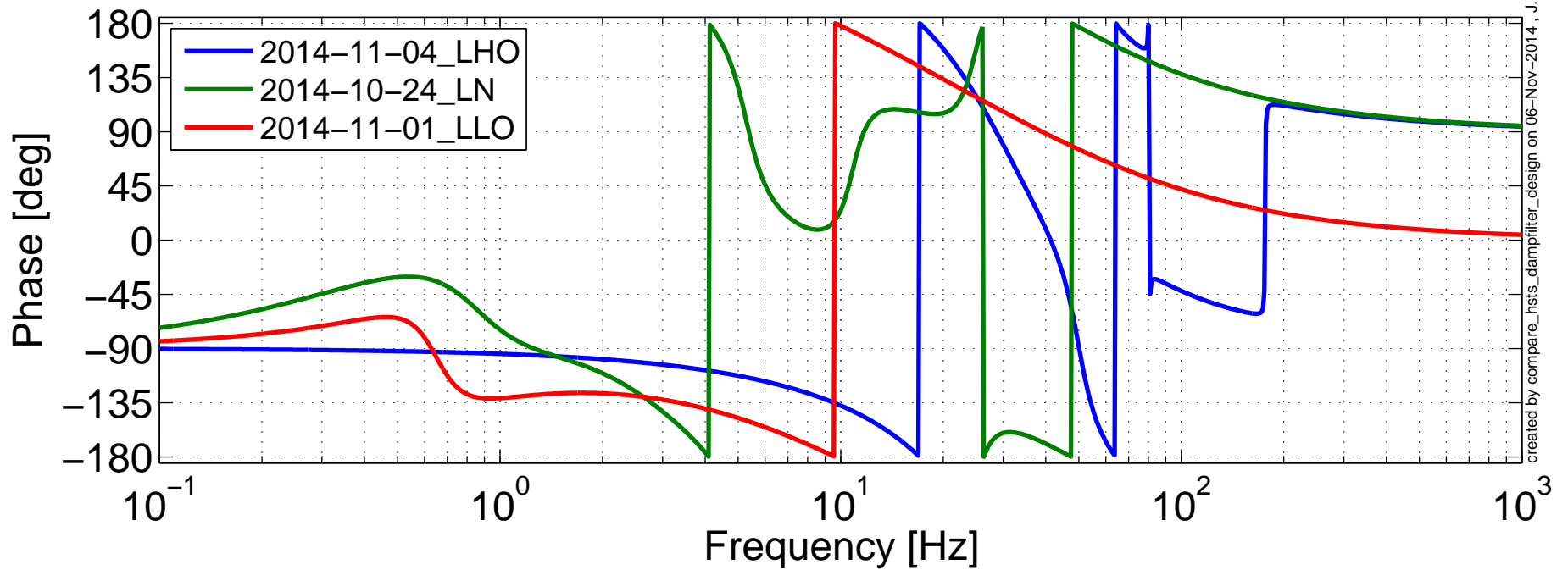
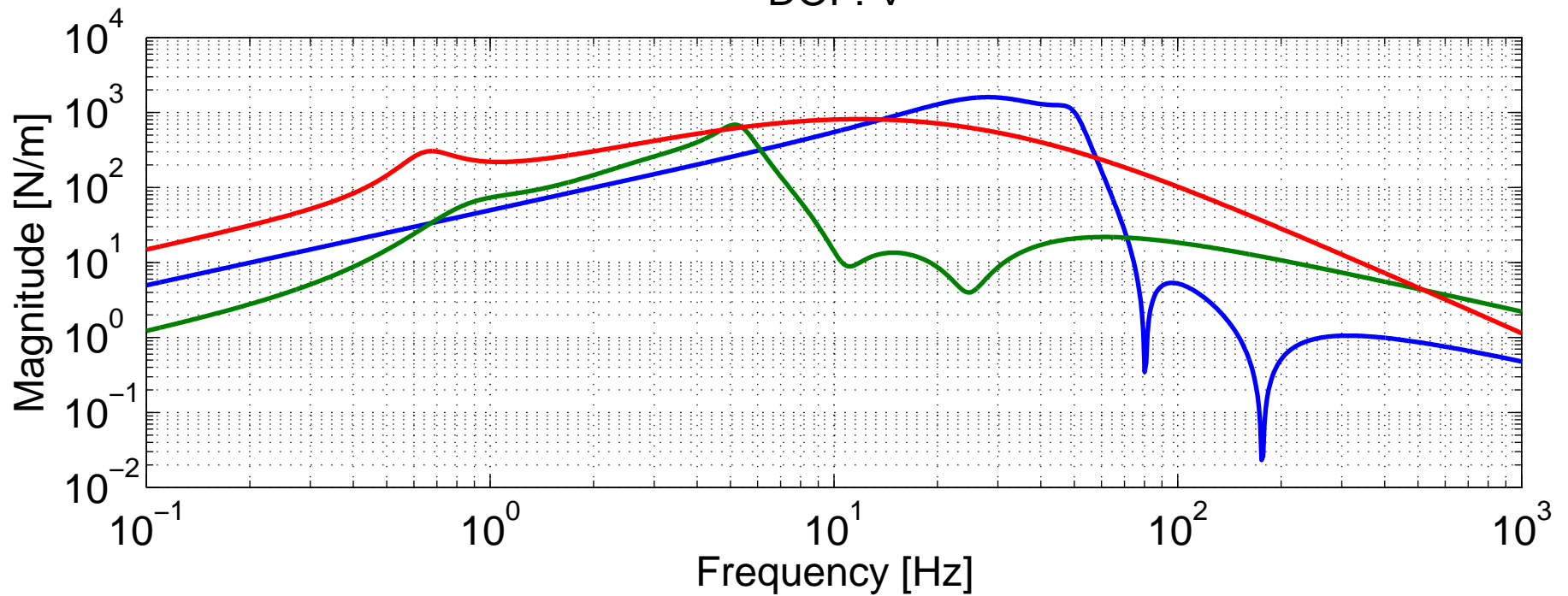
# Damping Loop Performance Comparison

## H1:SUS-MC2 T Test Mass Displacement

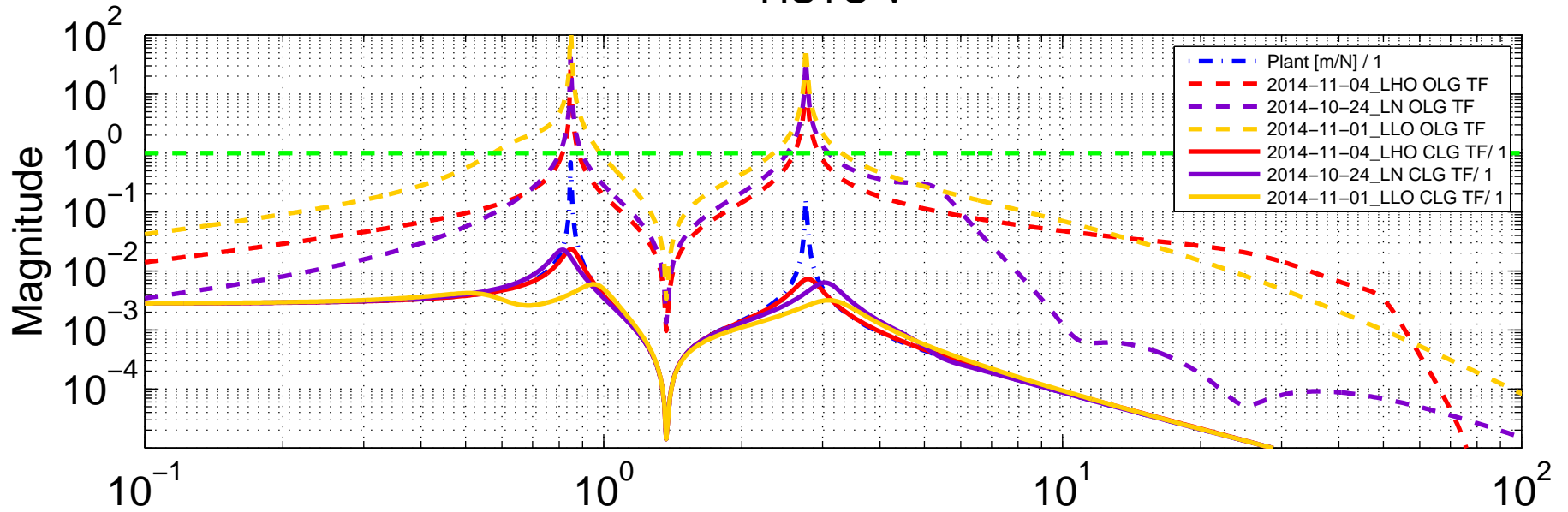


# Calibrated Damping Filter Comparison

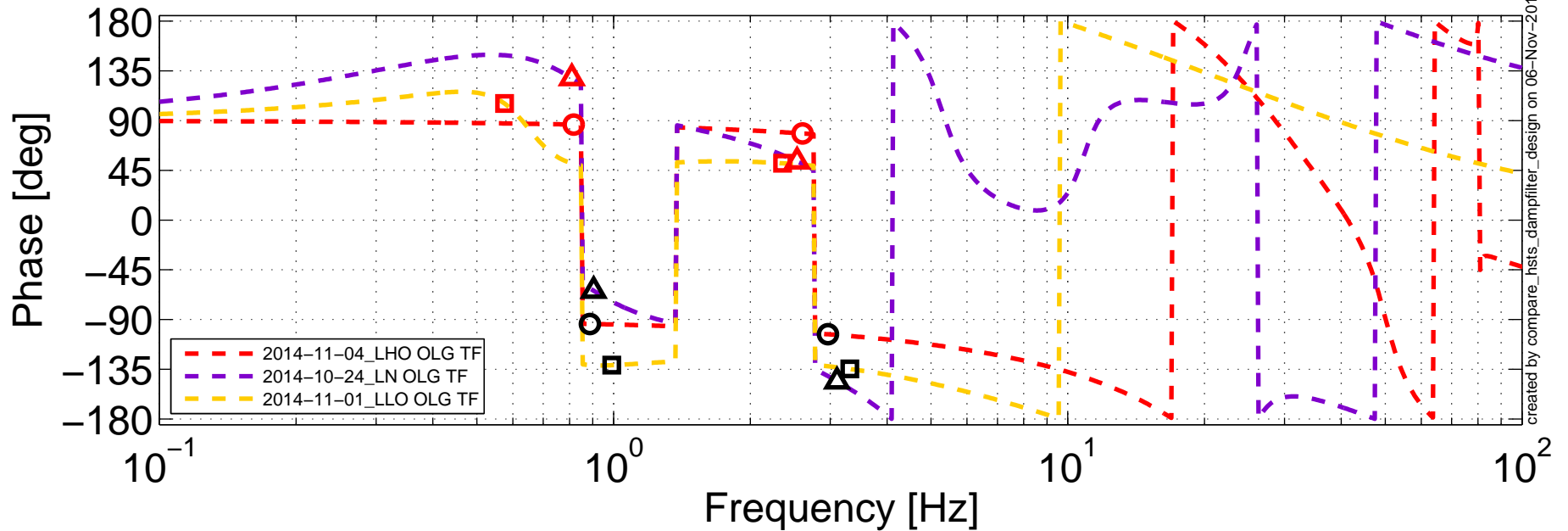
DOF: V



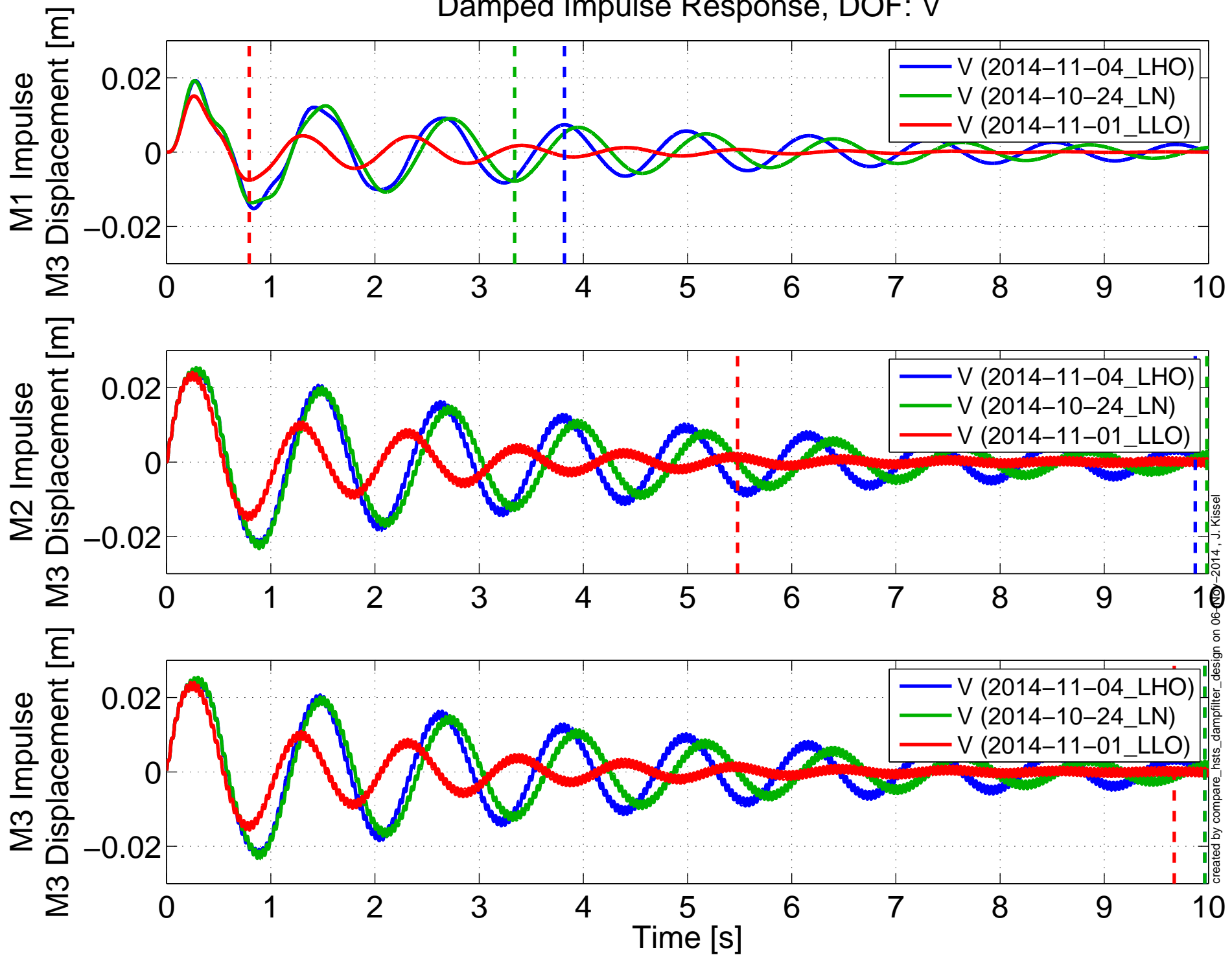
# Damping Loop Design Comparison HSTS V



First LUGF [o,^,s] : [LHO, LN, LLO] : [93.6, 51.5, 74.6] [deg]  
 Last UUGF [o,^,s] : [LHO, LN, LLO] : [76.7, 34.2, 45.3] [deg]



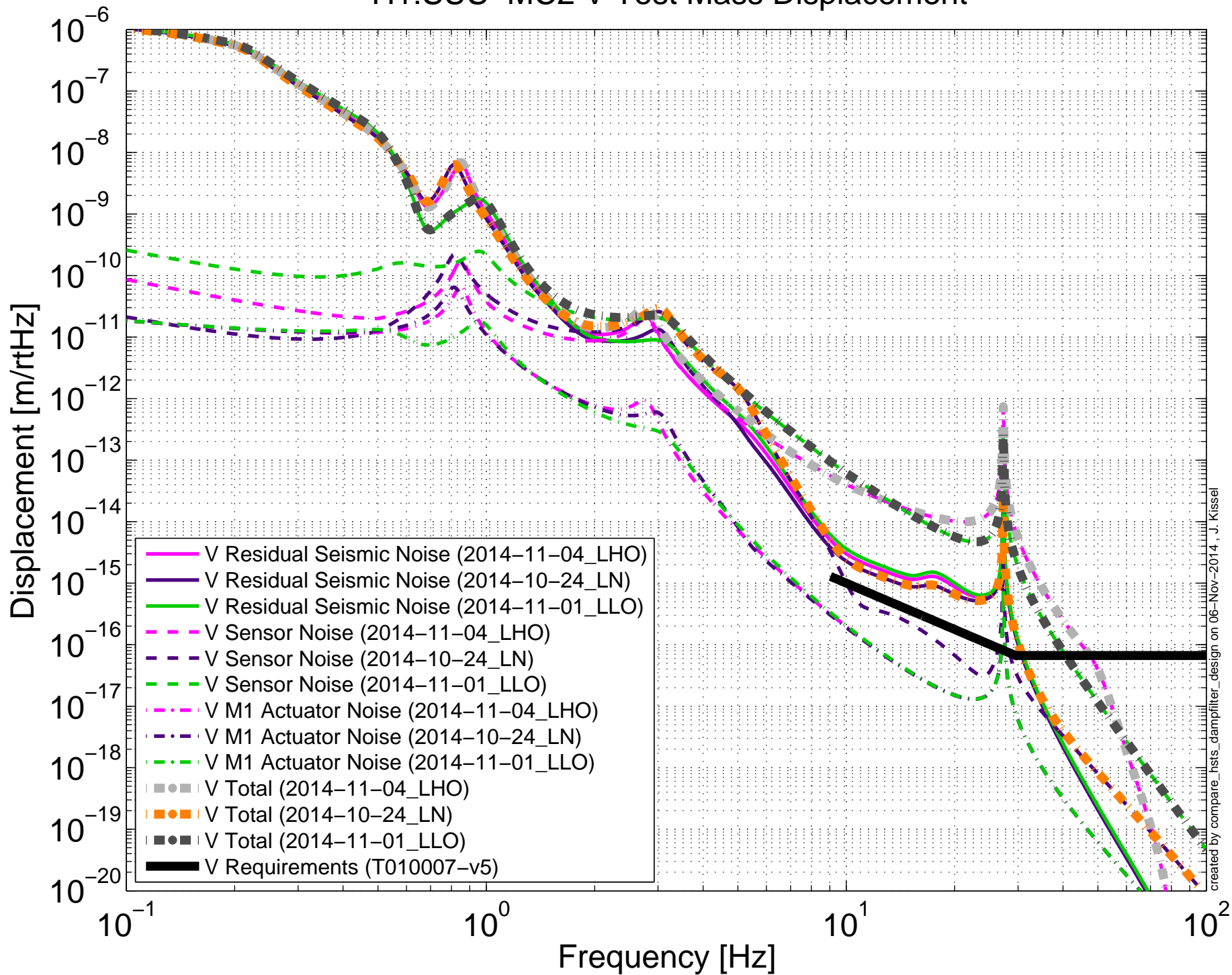
# Damped Impulse Response, DOF: V



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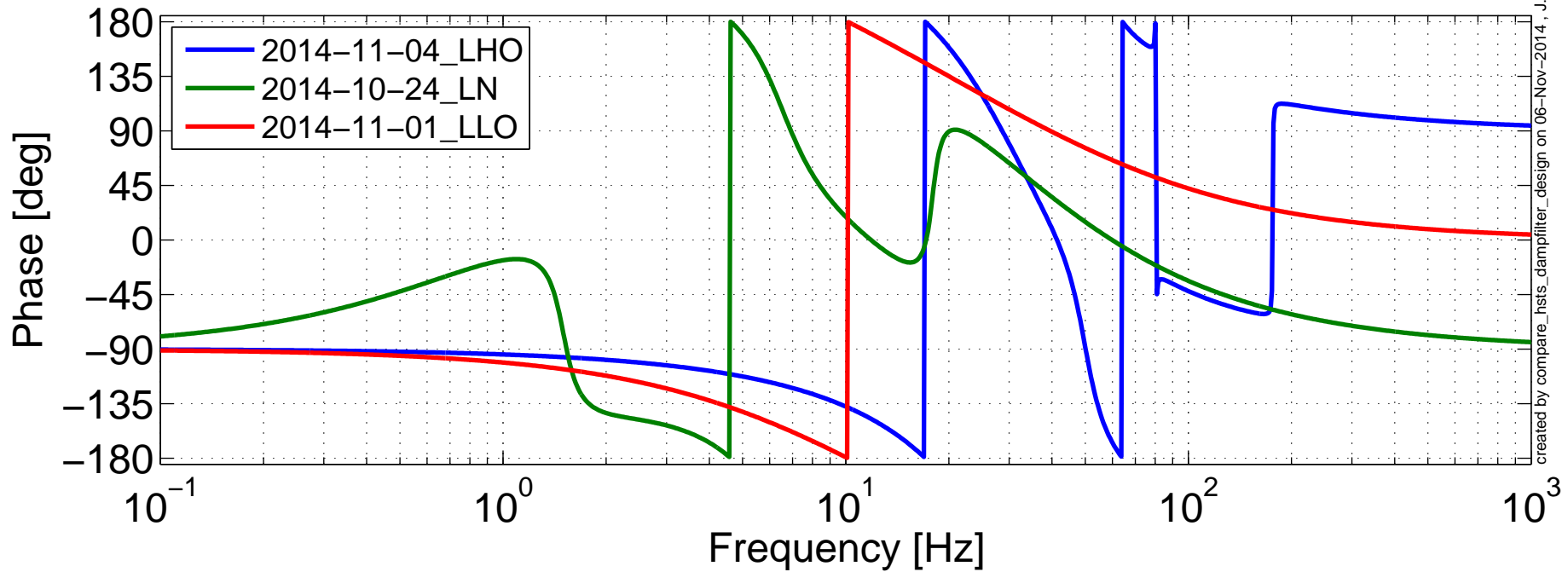
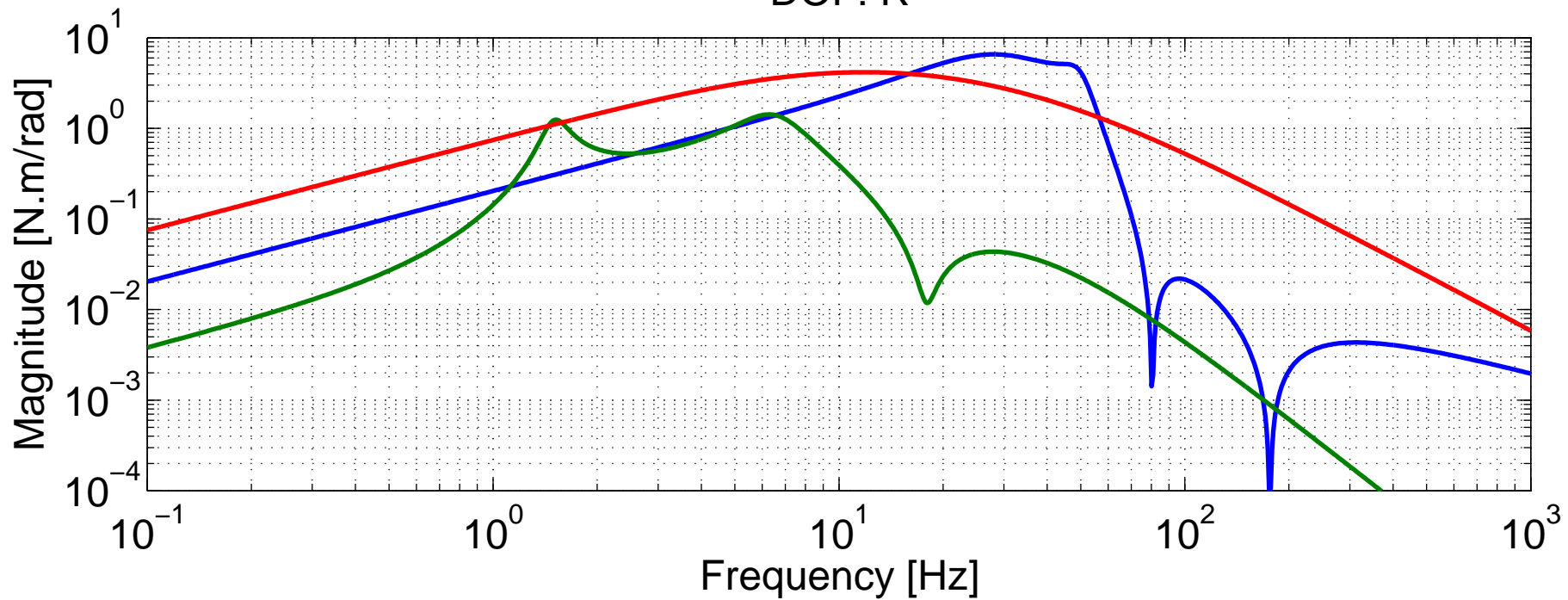
# Damping Loop Performance Comparison

## H1:SUS-MC2 V Test Mass Displacement



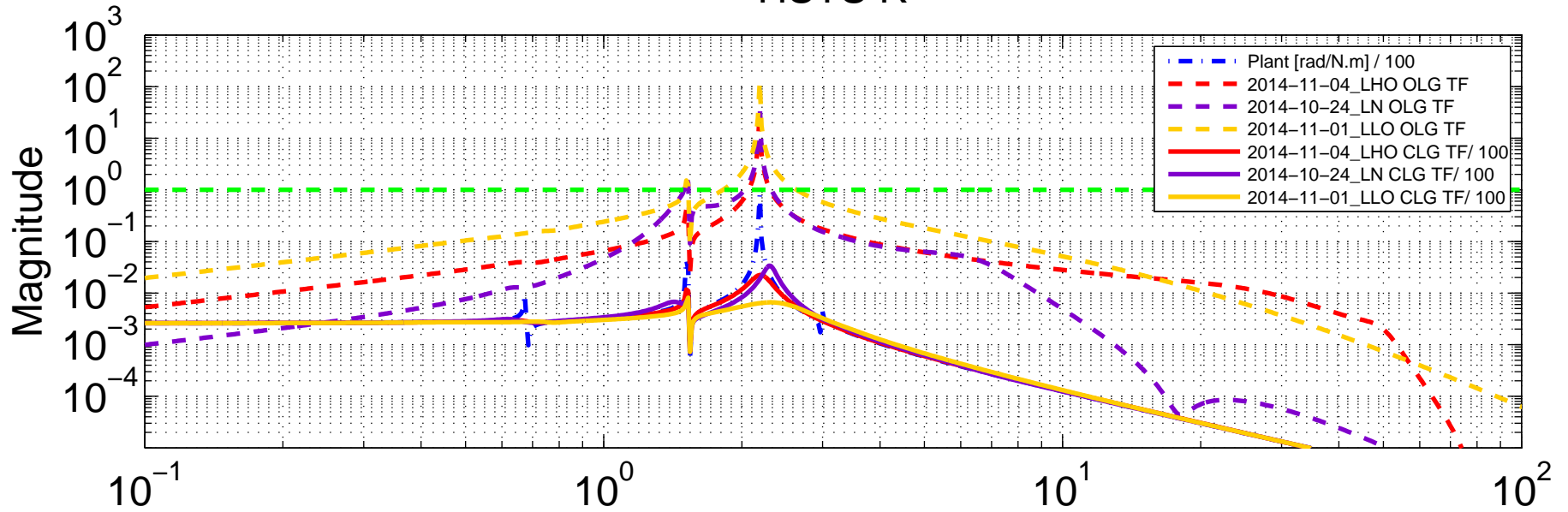
# Calibrated Damping Filter Comparison

DOF: R



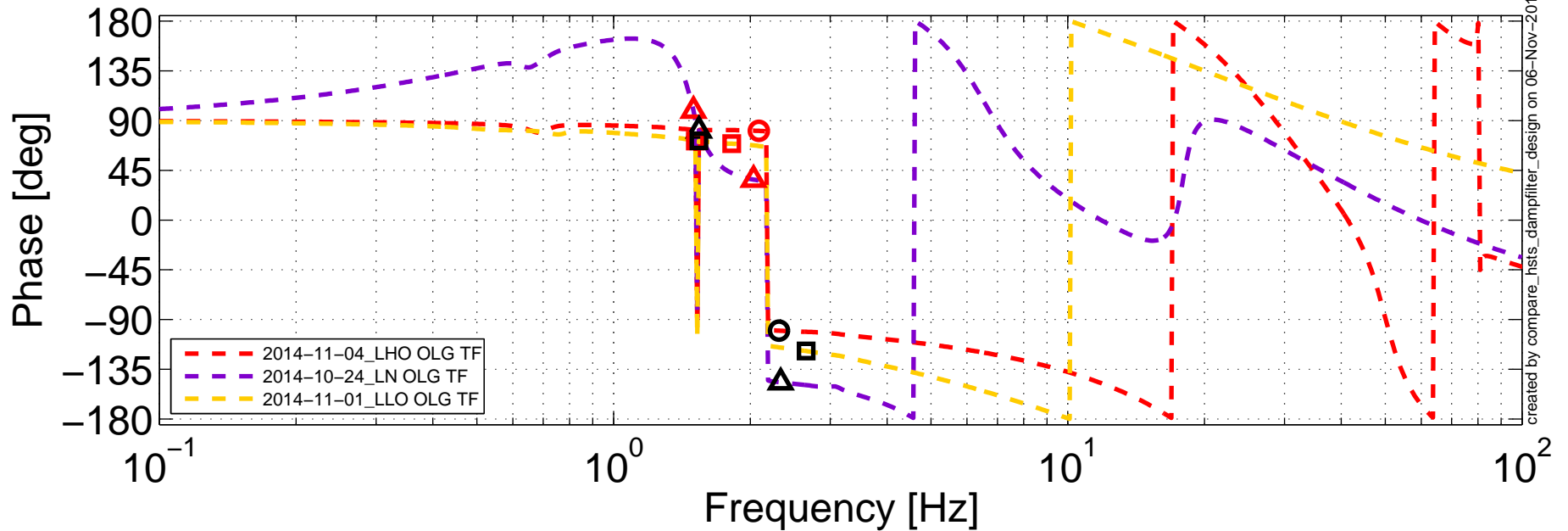
created by compare\_hsts\_dampfilter\_design on 06-Nov-2014, J. Kissel

# Damping Loop Design Comparison HSTS R



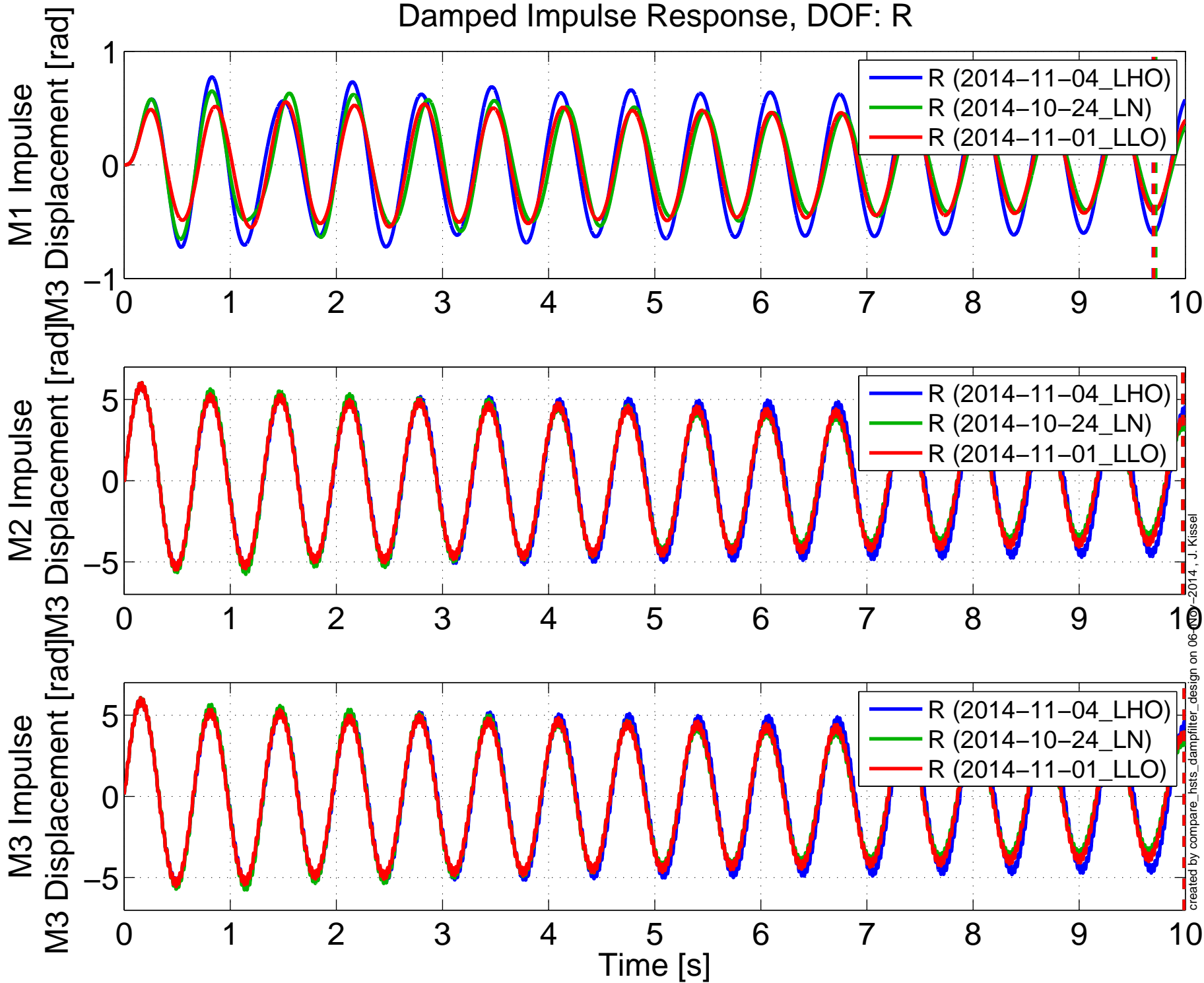
First LUGF [o,^,s] : [LHO, LN, LLO] : [99.3, 81.1, 109] [deg]

Last UUGF [o,^,s] : [LHO, LN, LLO] : [80, 33.2, 61.5] [deg]





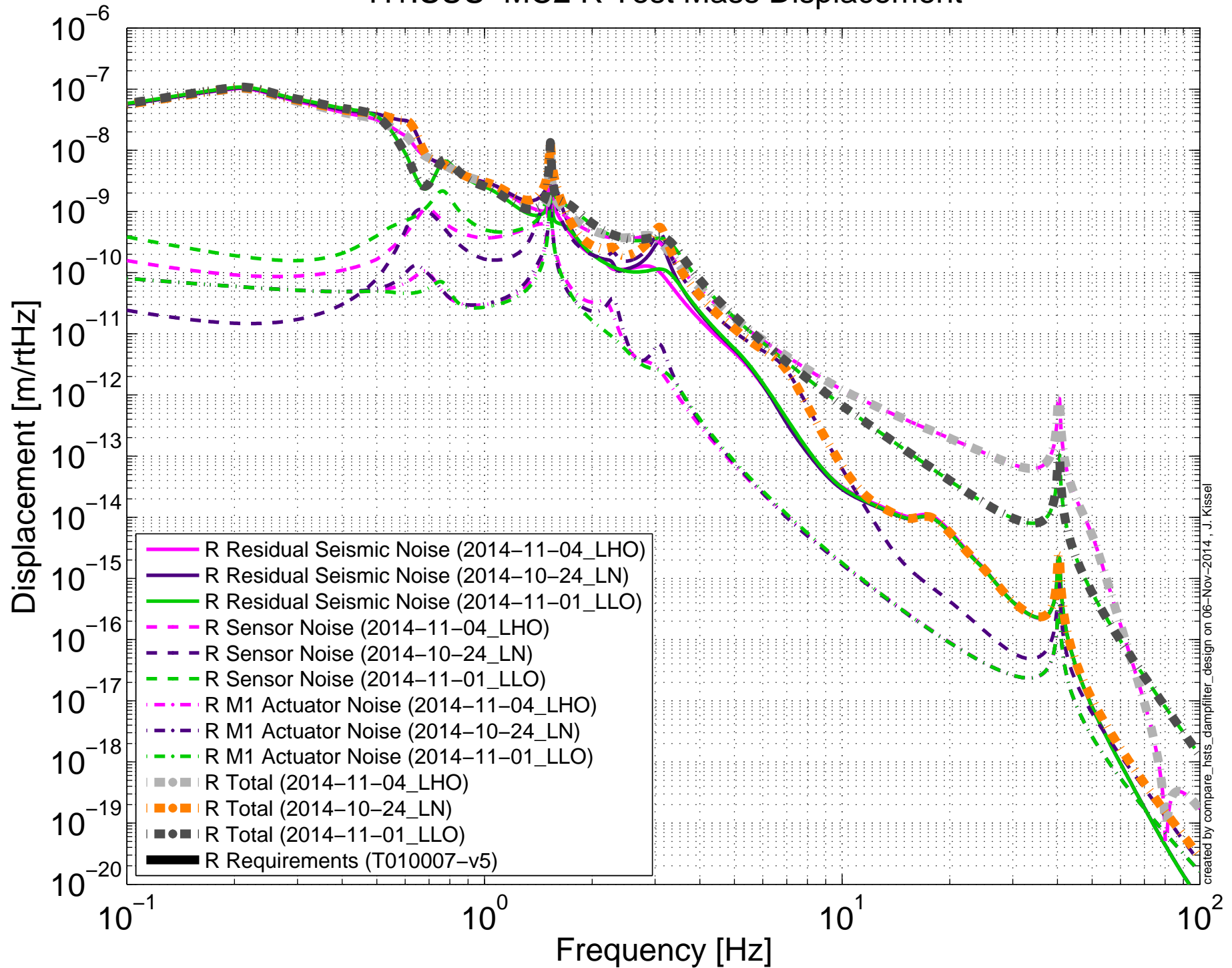
# Damped Impulse Response, DOF: R



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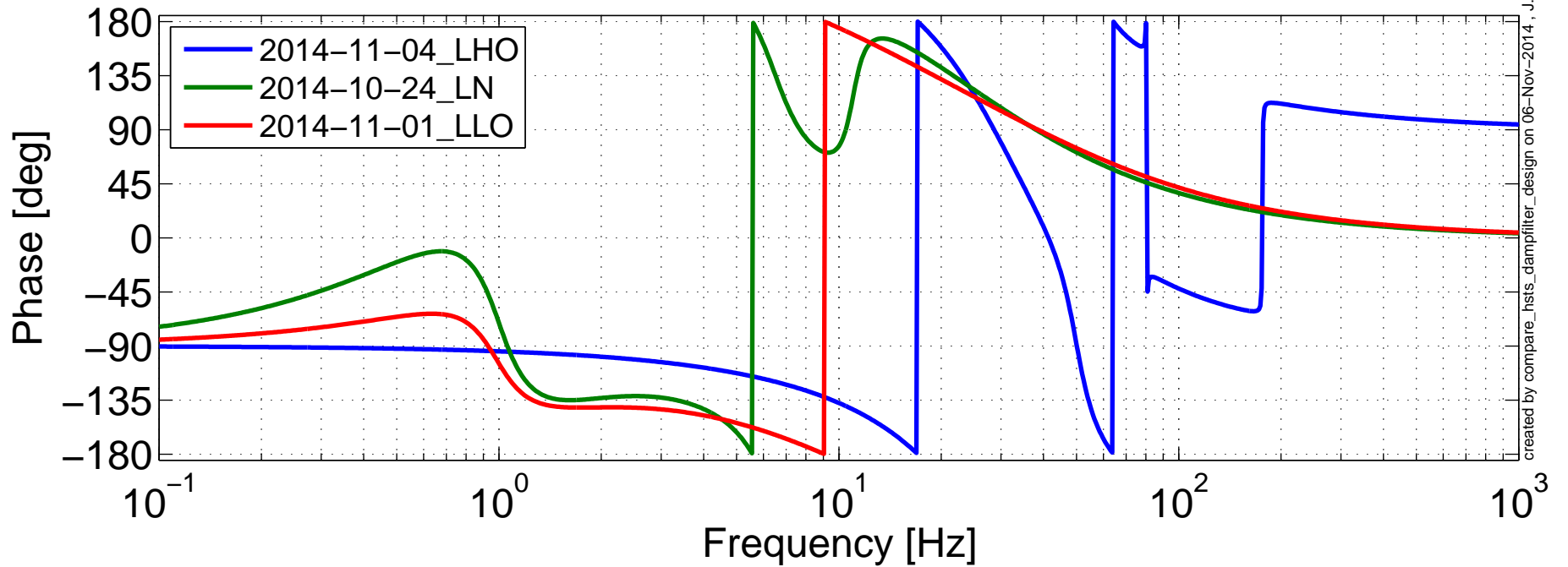
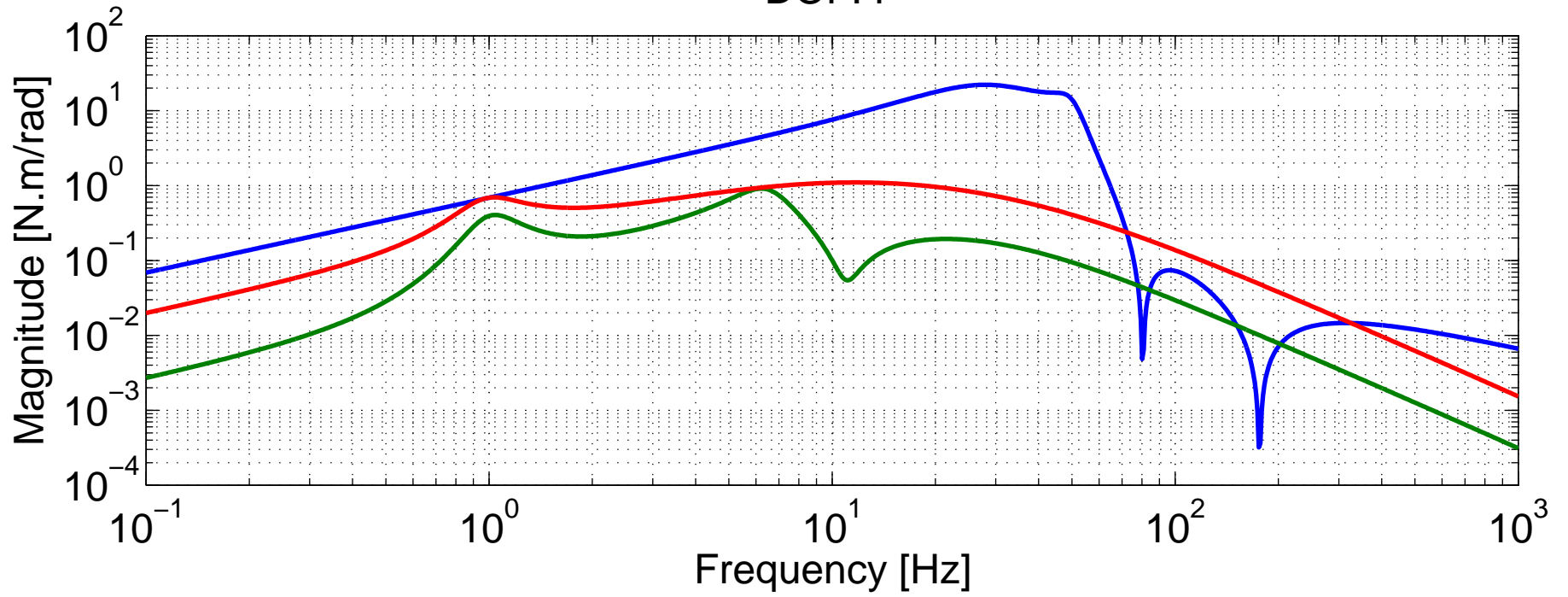
# Damping Loop Performance Comparison

## H1:SUS-MC2 R Test Mass Displacement

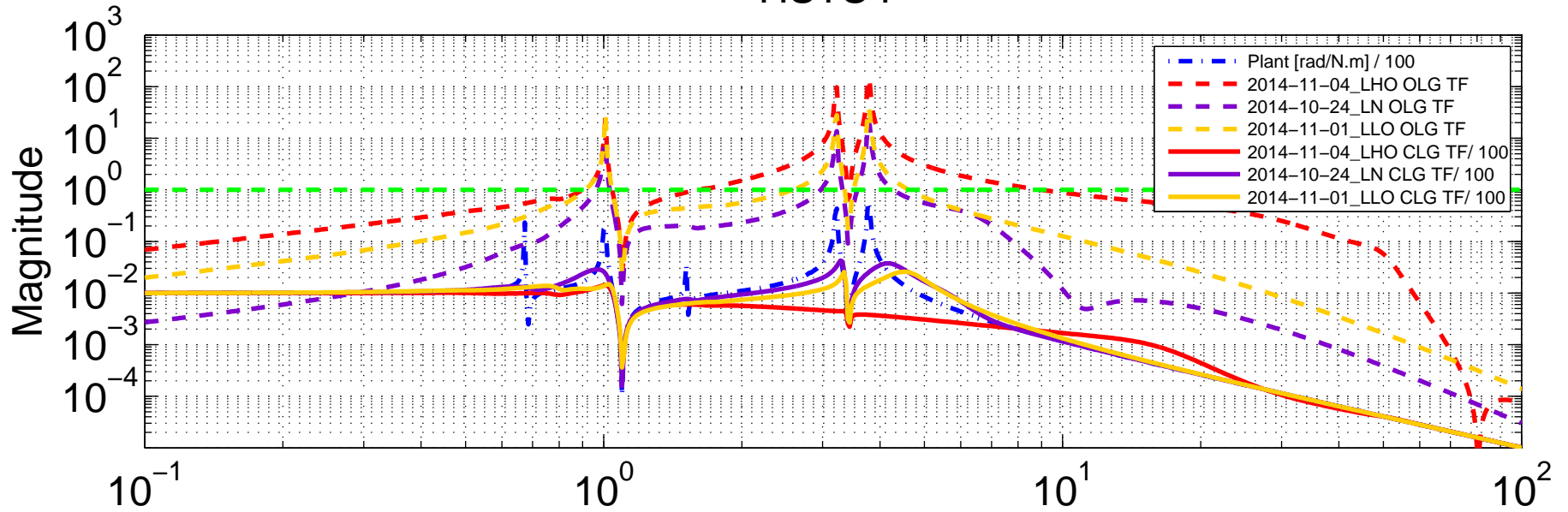


# Calibrated Damping Filter Comparison

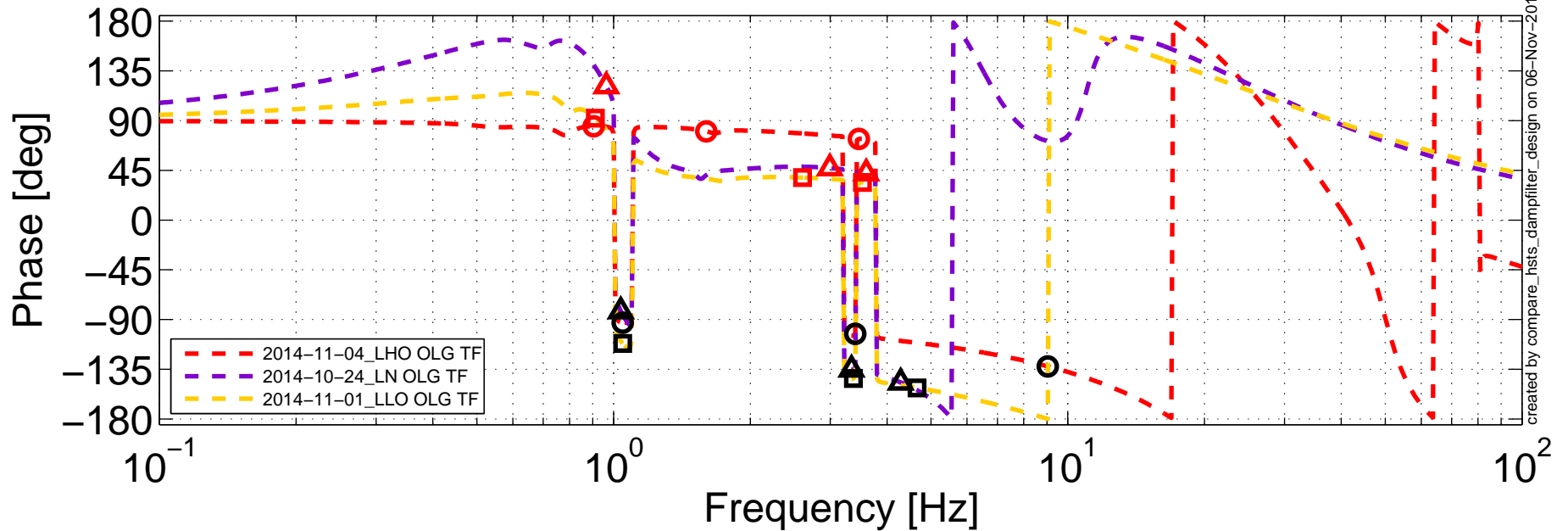
DOF: P



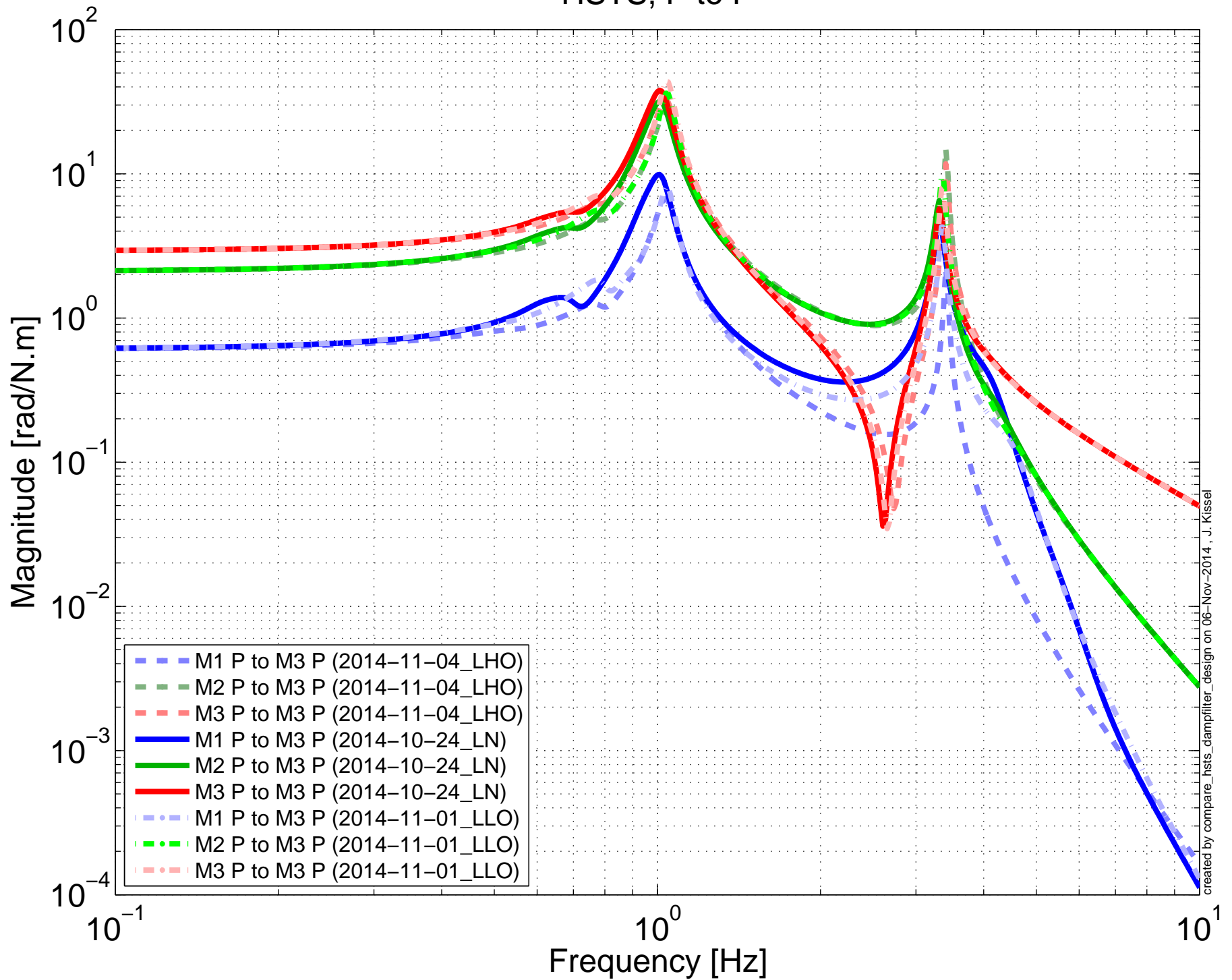
# Damping Loop Design Comparison HSTS P



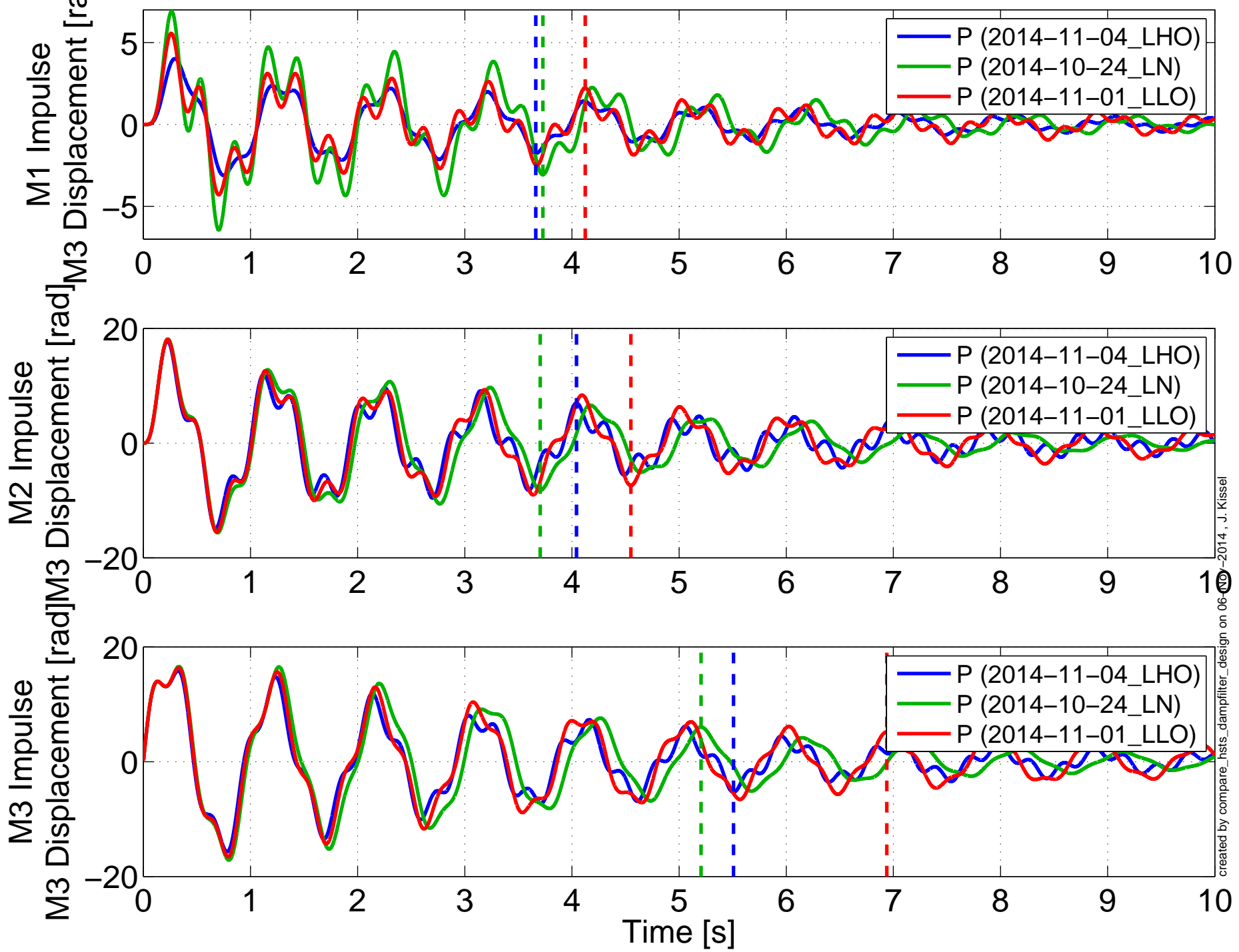
First LUGF [o,^s] : [LHO, LN, LLO] : [95.1, 58.9, 87.9] [deg]  
 Last UUGF [o,^s] : [LHO, LN, LLO] : [47.6, 33.2, 28.2] [deg]



# Global Control Transfer Functions to Optic HSTS, P to P



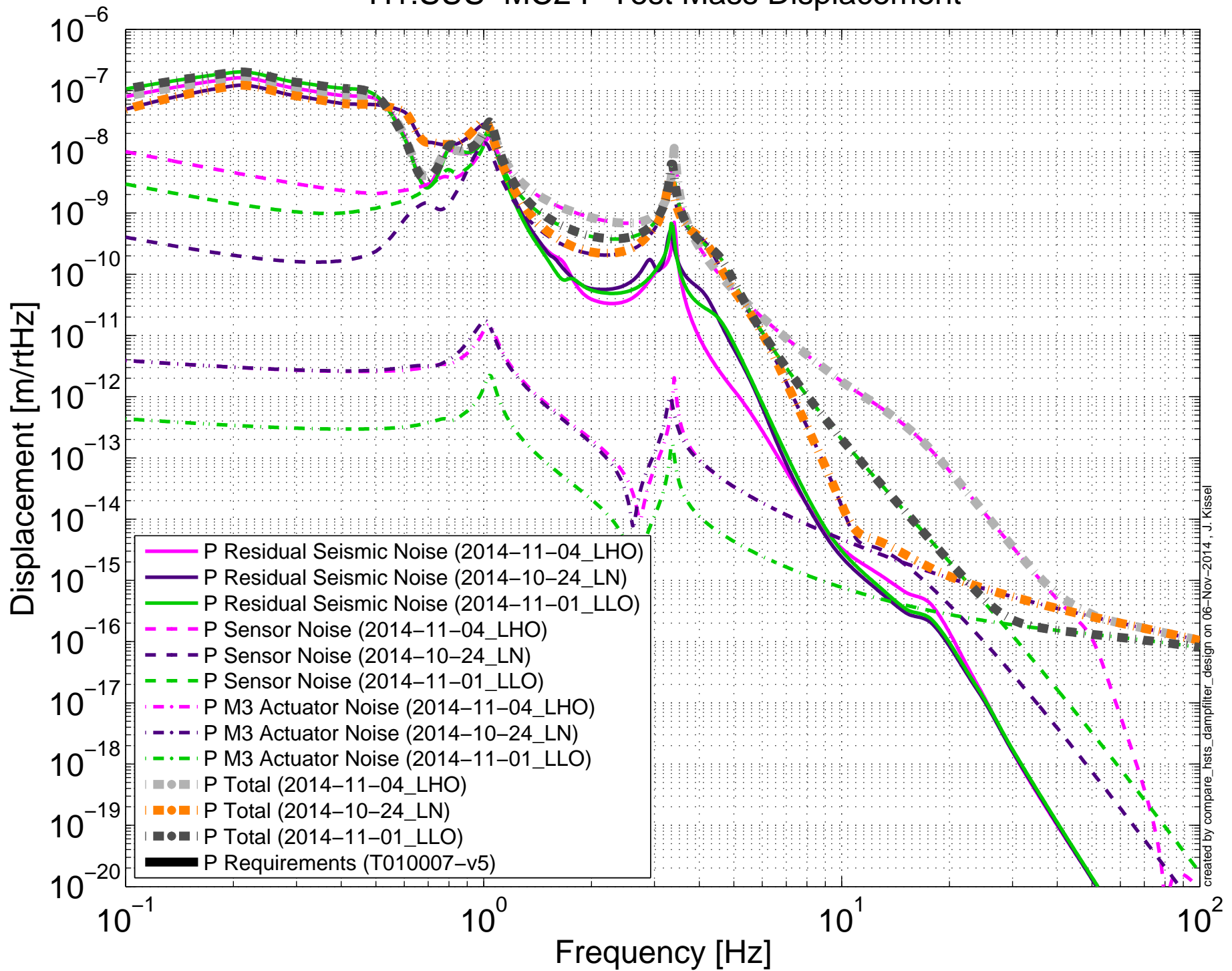
# Damped Impulse Response, DOF: P



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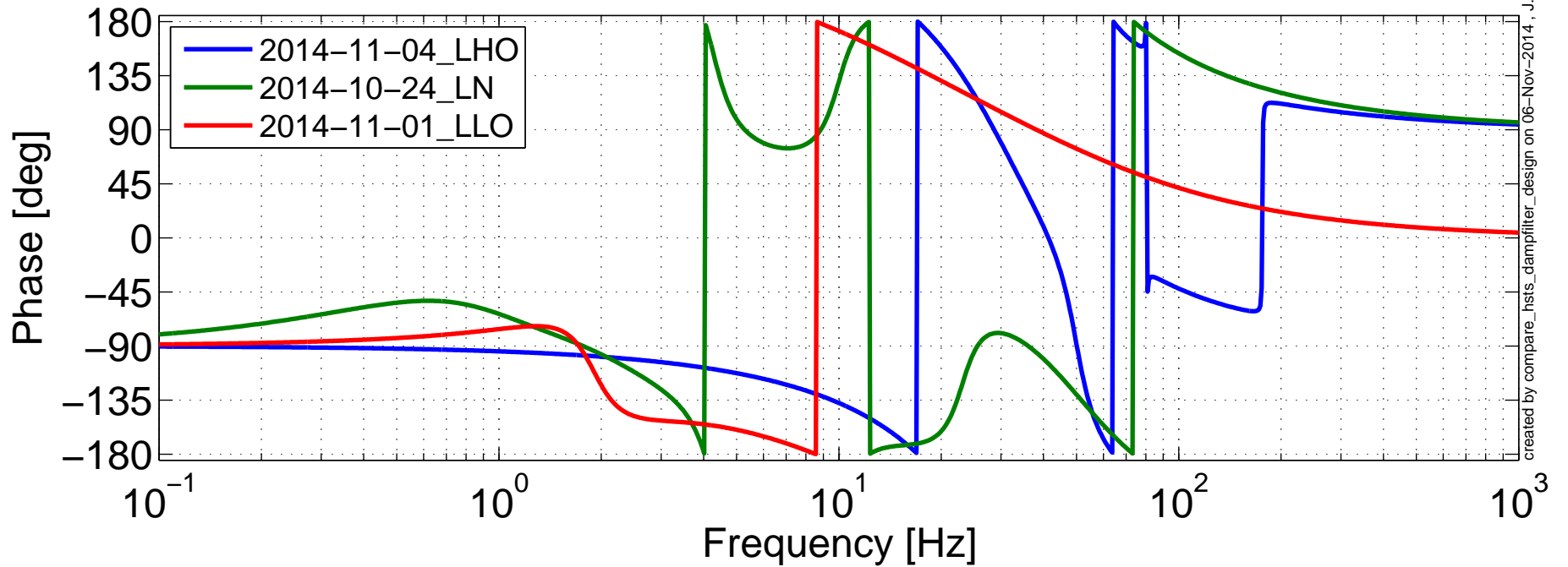
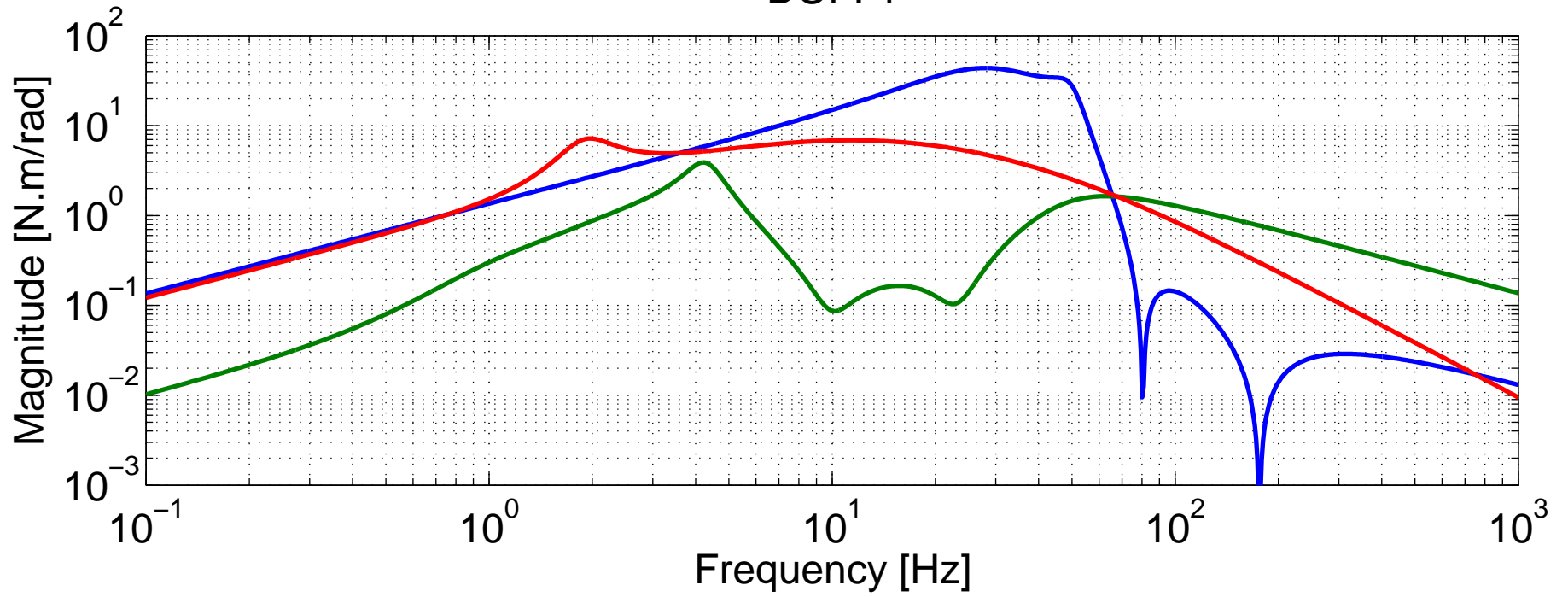
# Damping Loop Performance Comparison

## H1:SUS-MC2 P Test Mass Displacement



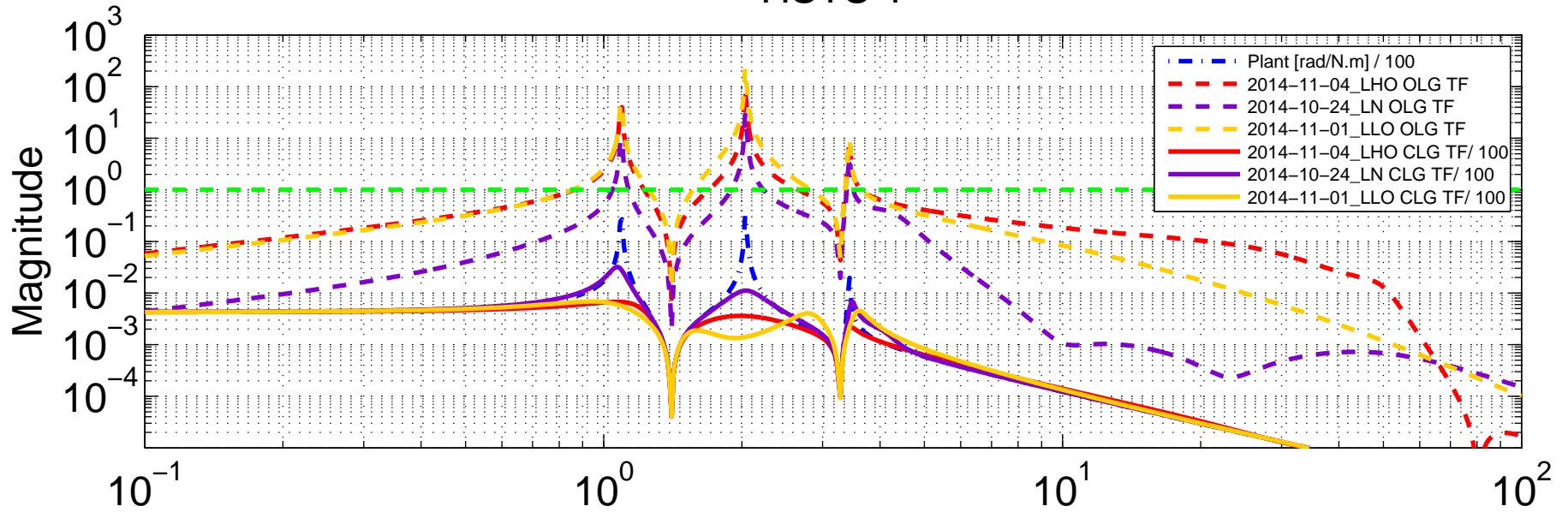
# Calibrated Damping Filter Comparison

DOF: Y



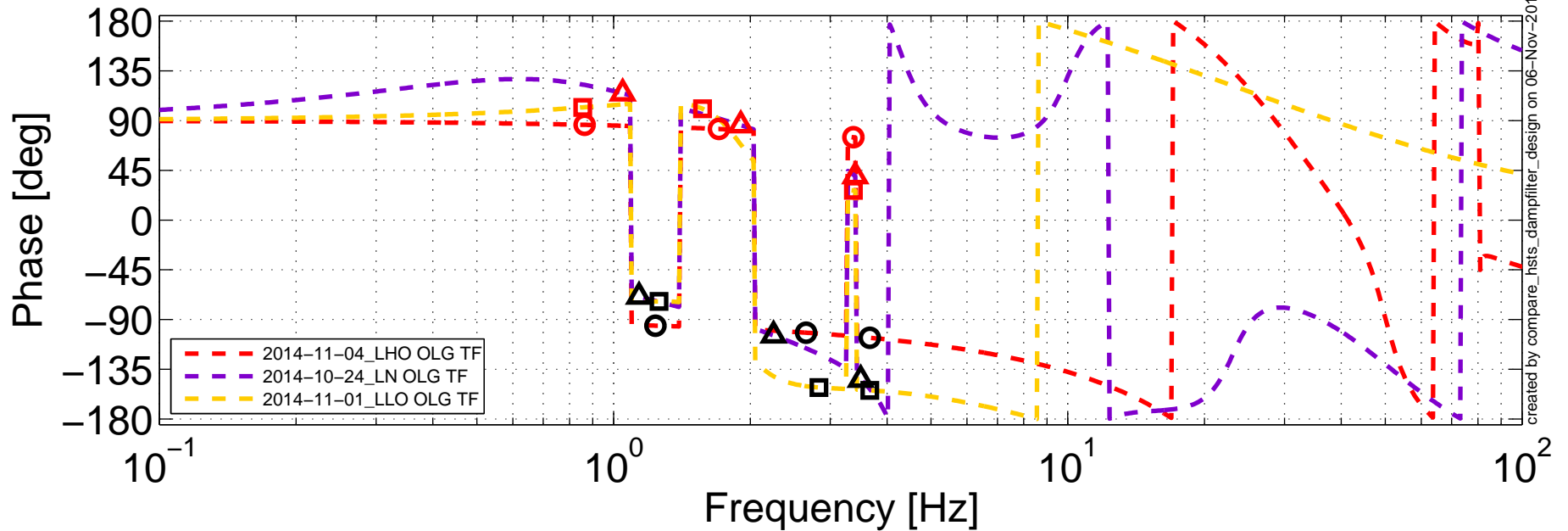


# Damping Loop Design Comparison HSTS Y

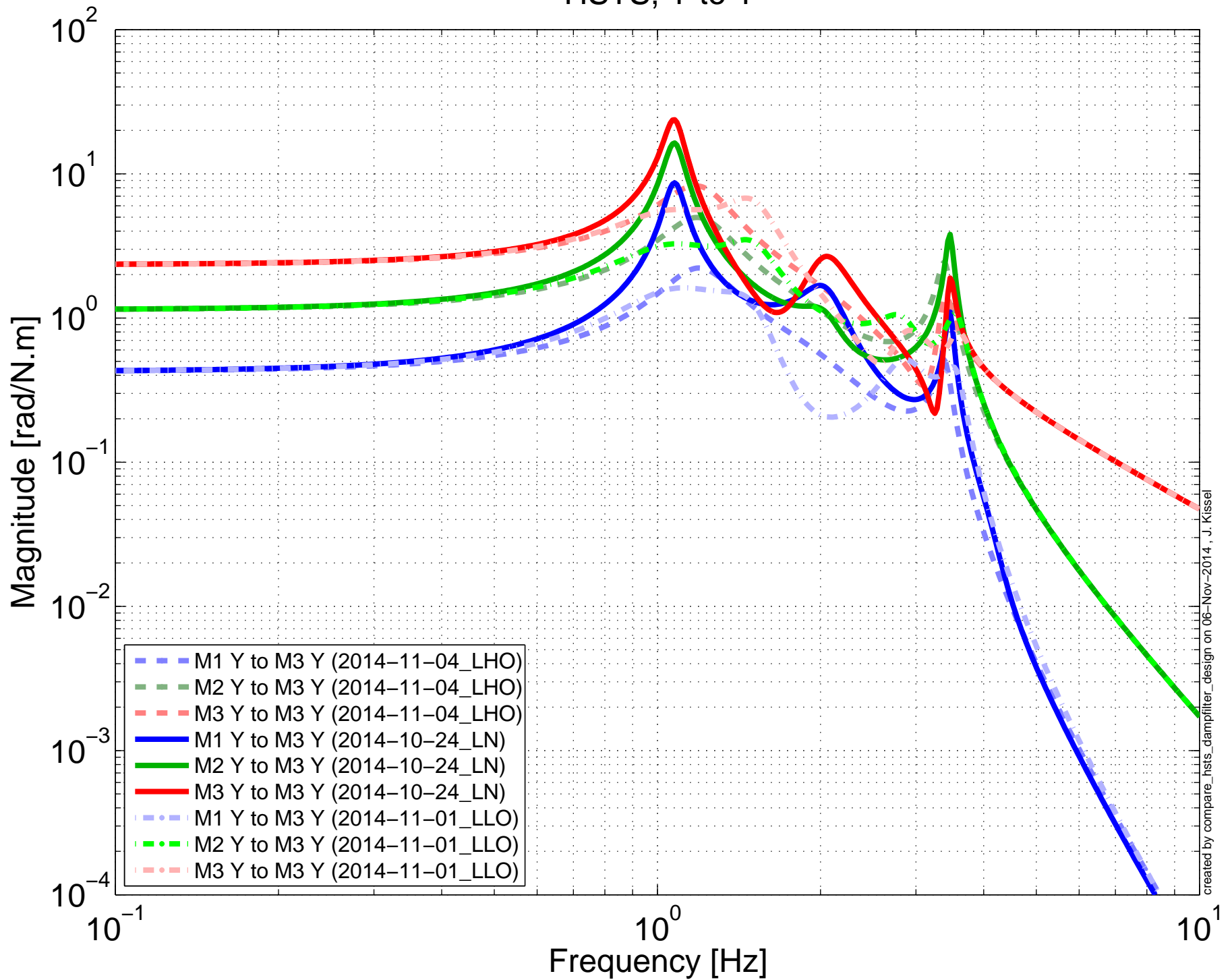


First LUGF [°] : [LHO, LN, LLO] : [93.8, 65.4, 78.1] [deg]

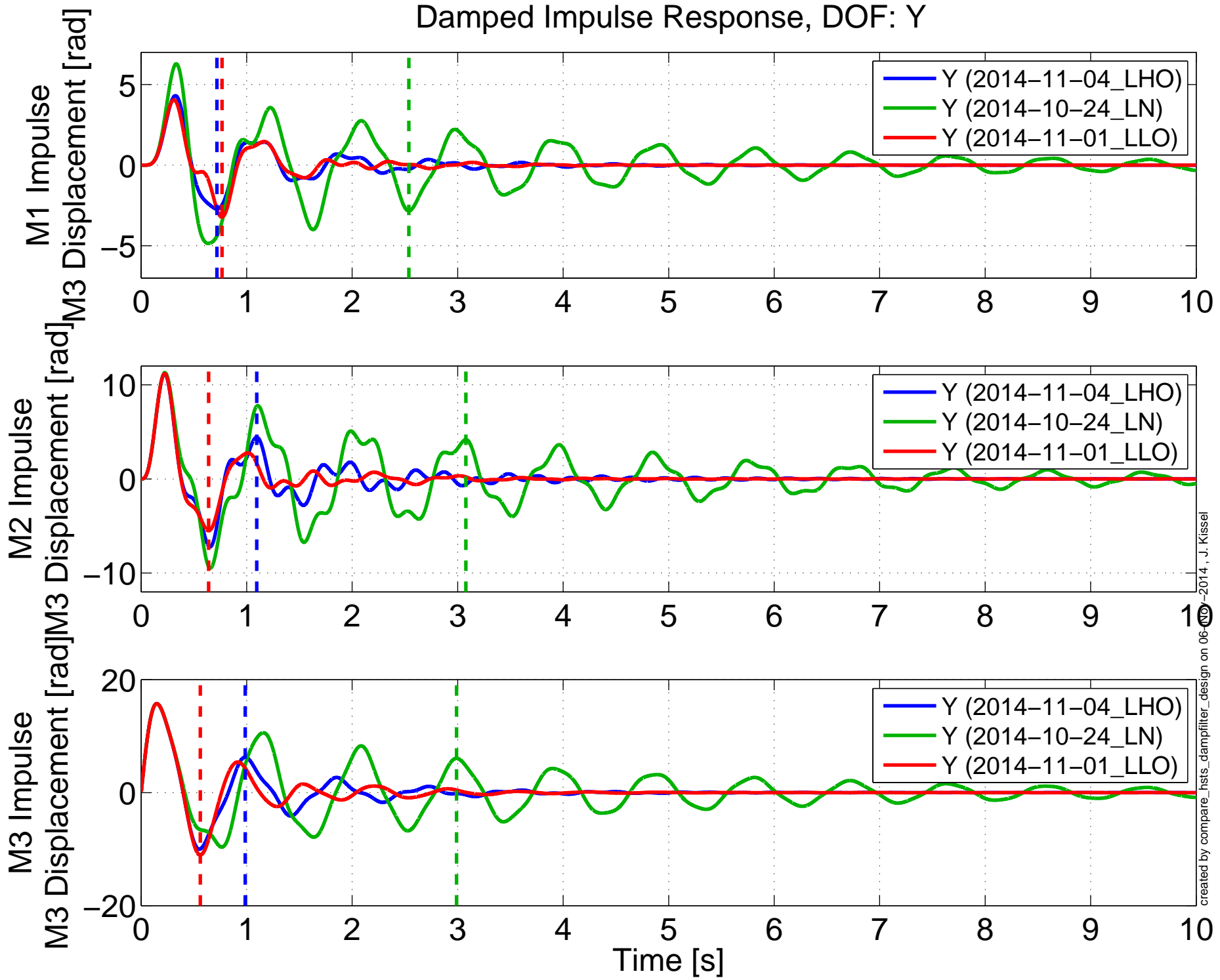
Last UUGF [°] : [LHO, LN, LLO] : [73.5, 35.6, 26] [deg]



# Global Control Transfer Functions to Optic HSTS, Y to Y

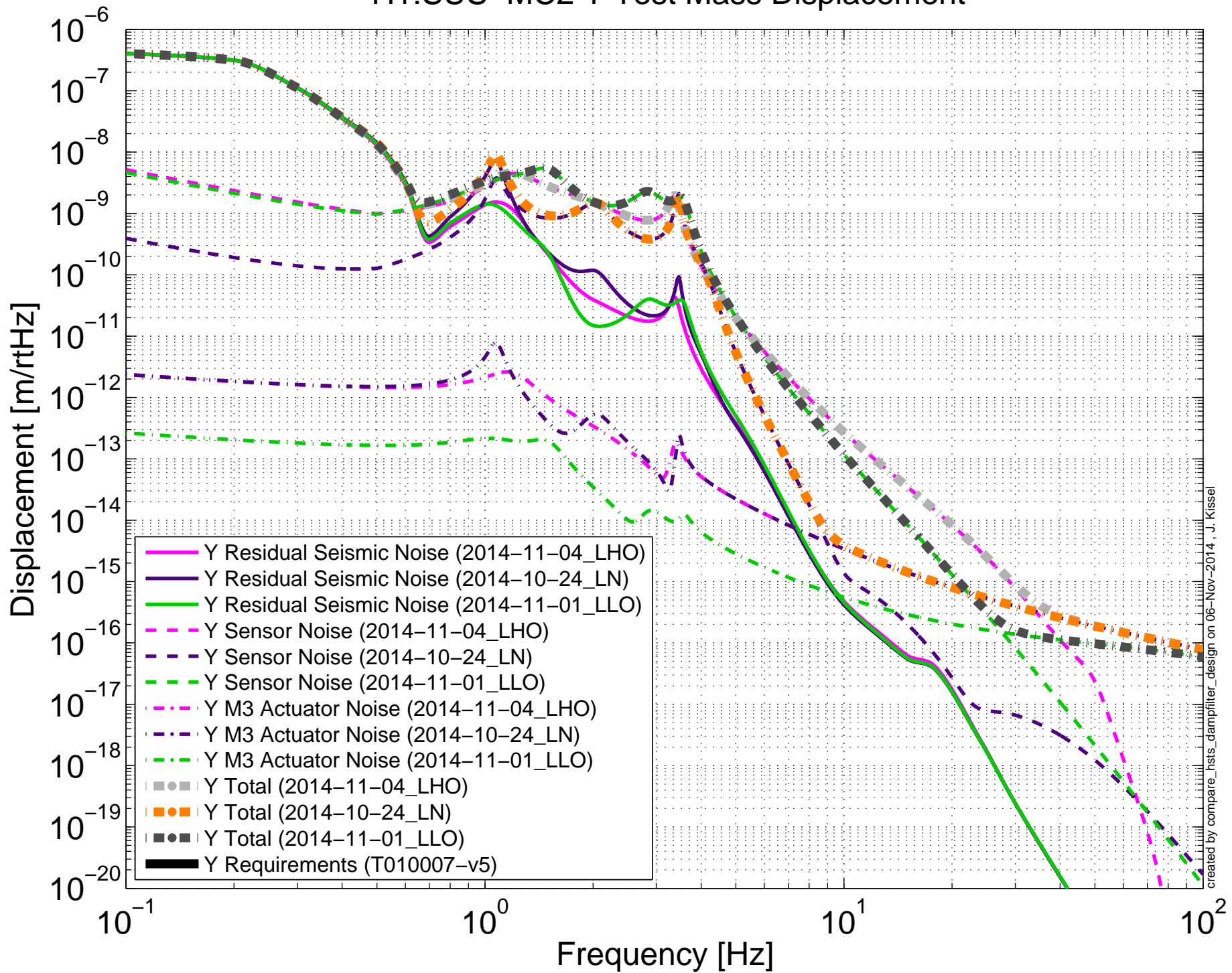


# Damped Impulse Response, DOF: Y



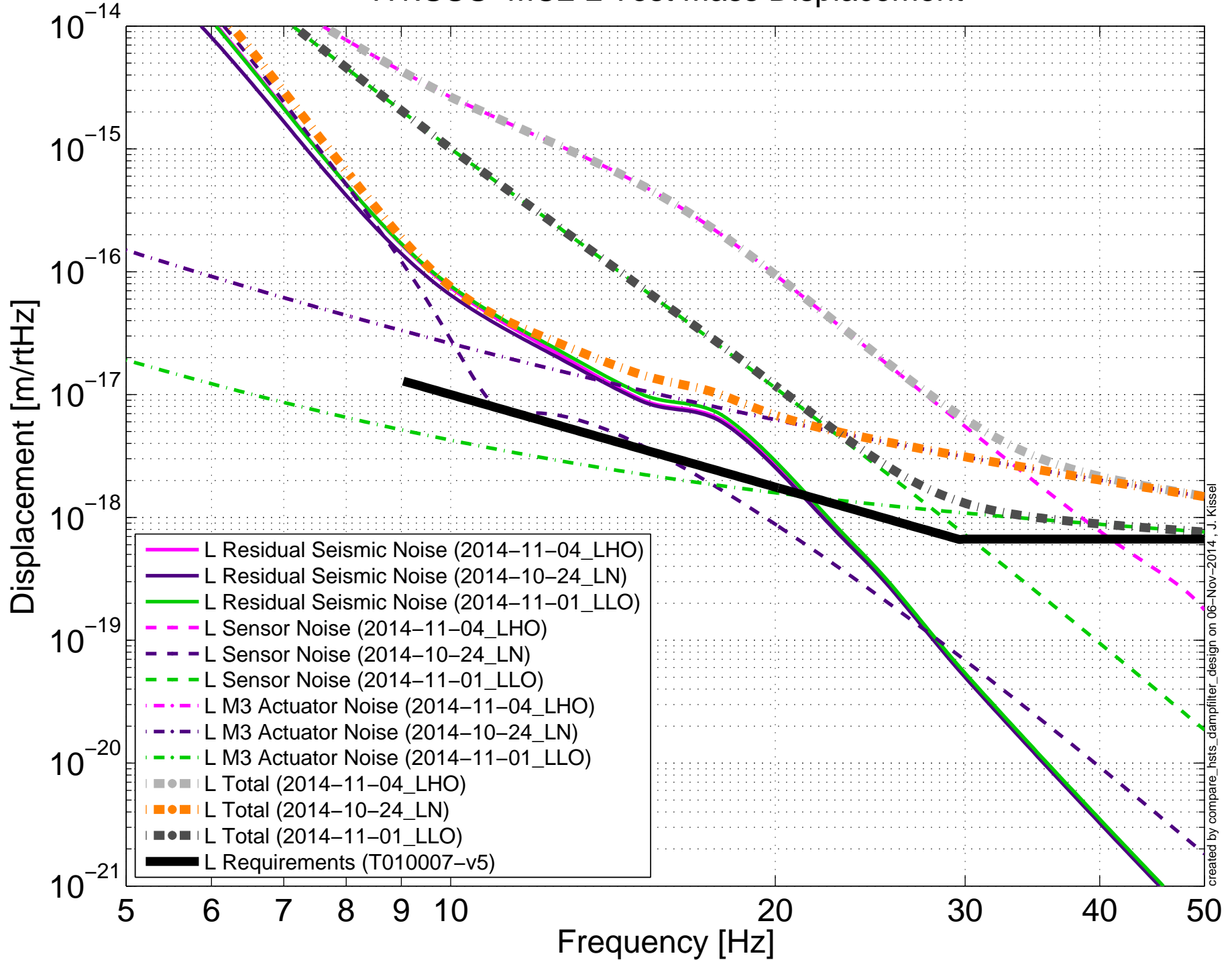
# Damping Loop Performance Comparison

## H1:SUS-MC2 Y Test Mass Displacement



# Damping Loop Performance Comparison

## H1:SUS-MC2 L Test Mass Displacement



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