

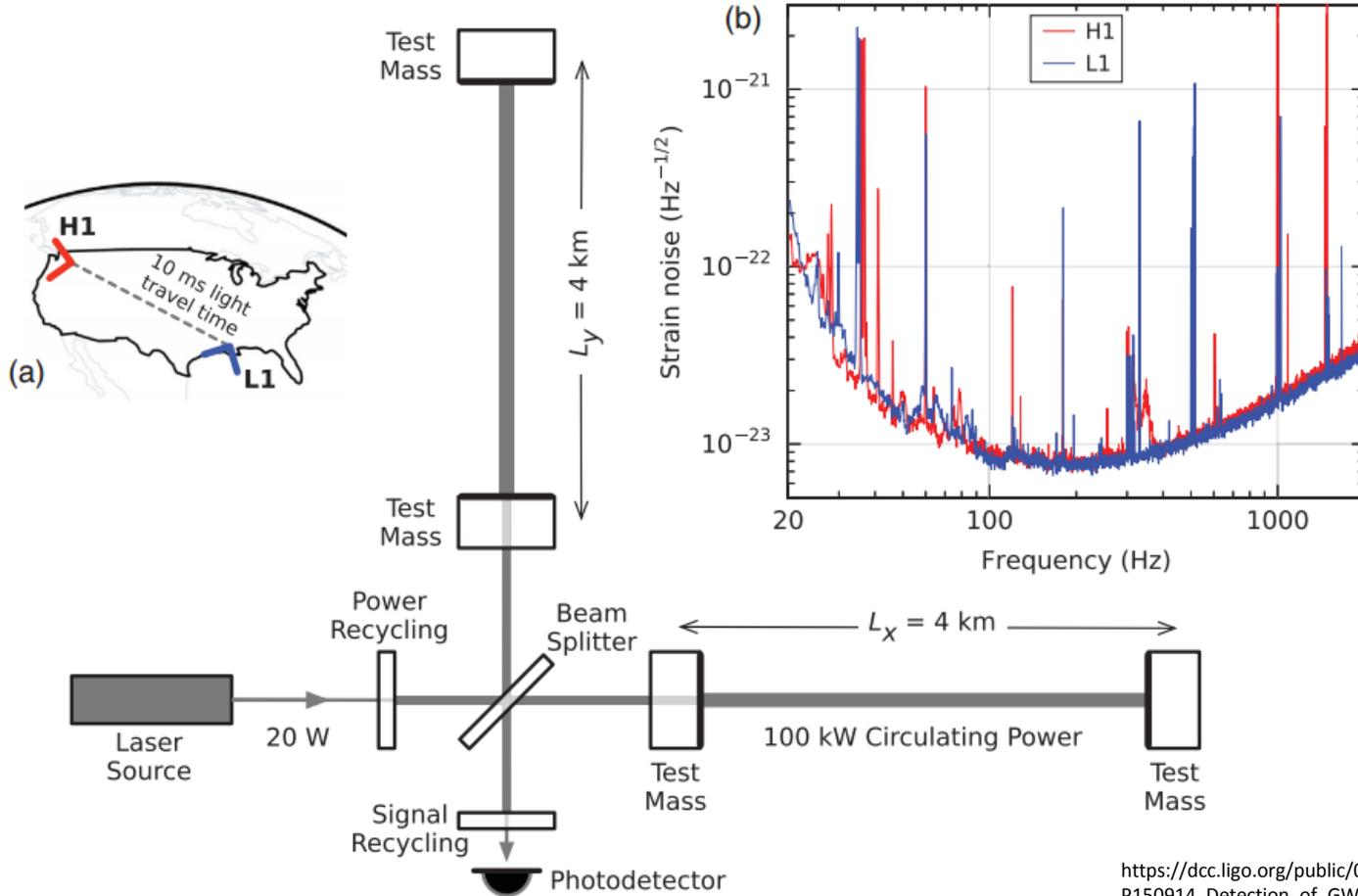
# Isolamento vibracional para o LIGO e cavidades para o Schenberg

Elvis Camilo Ferreira (doutorando)

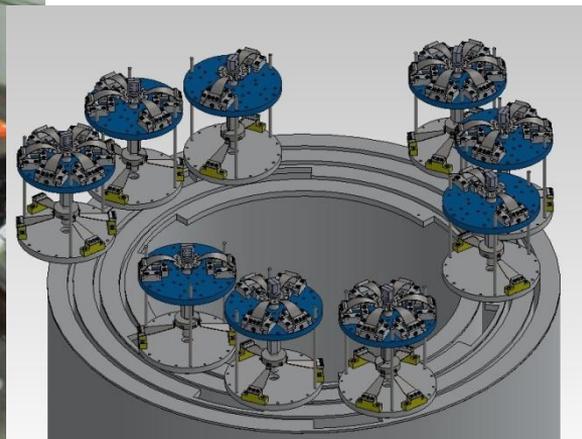
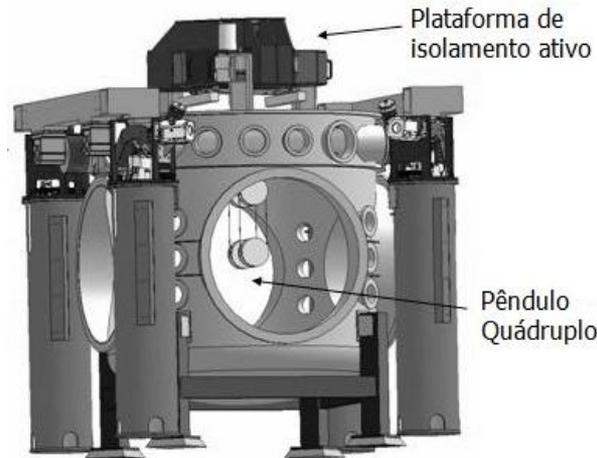
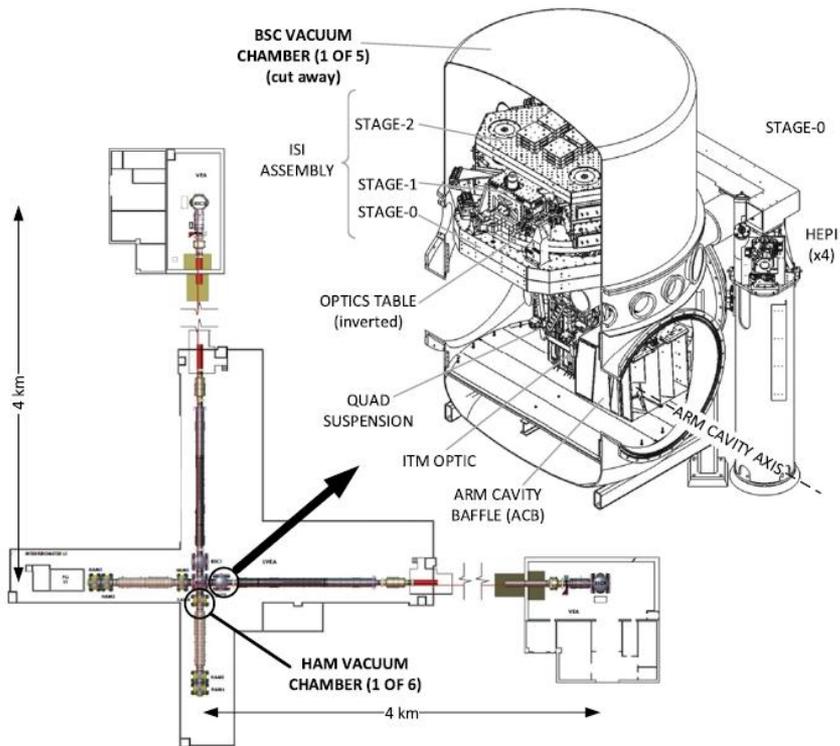
Orientador: Odylio Aguiar

Workshop DAS 2017

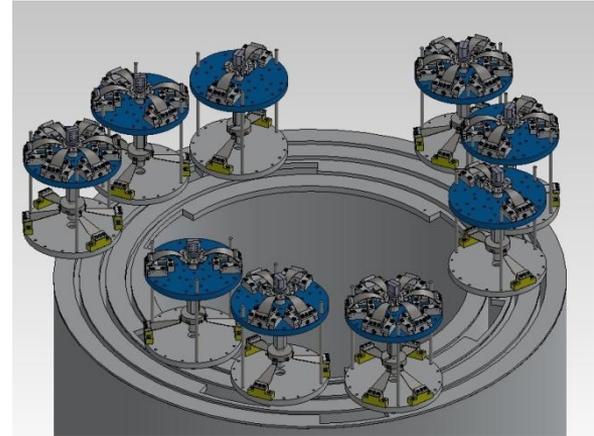
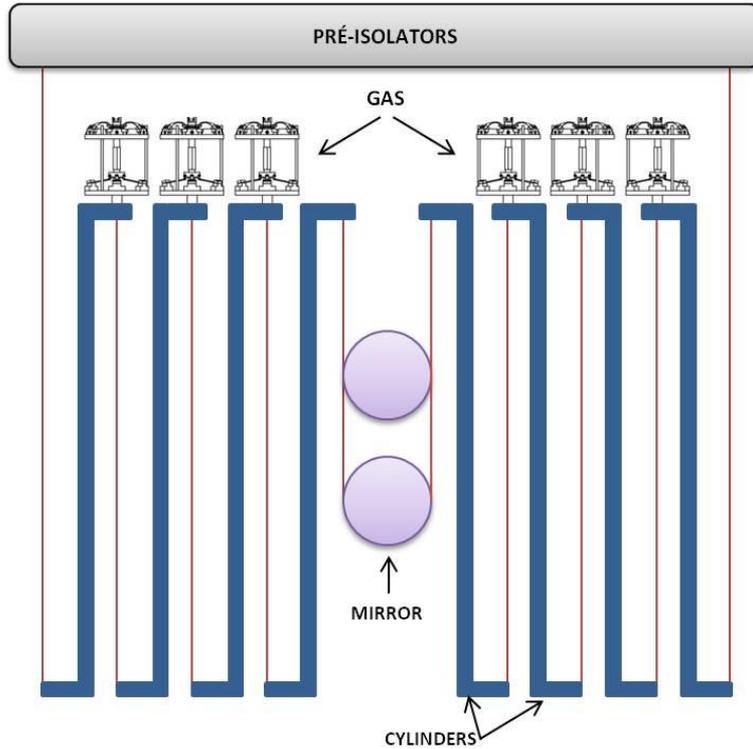
# Detector Advanced LIGO



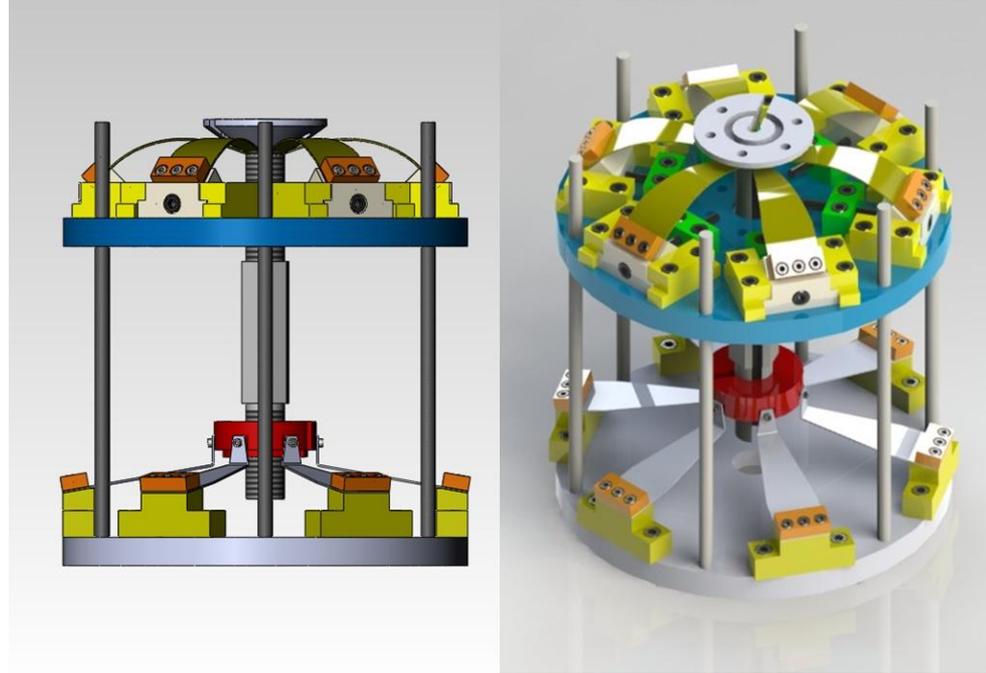
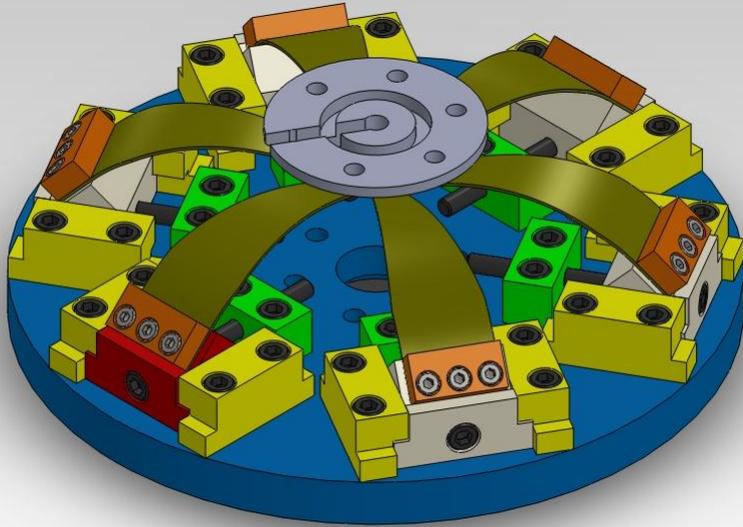
# Isolamento vibracional



# Isolamento vibracional



# Antimola geométrica

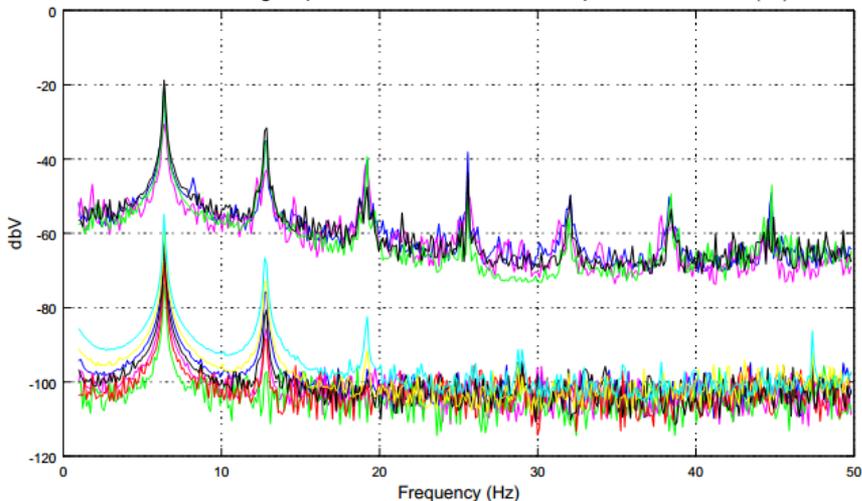


# Antimola geométrica



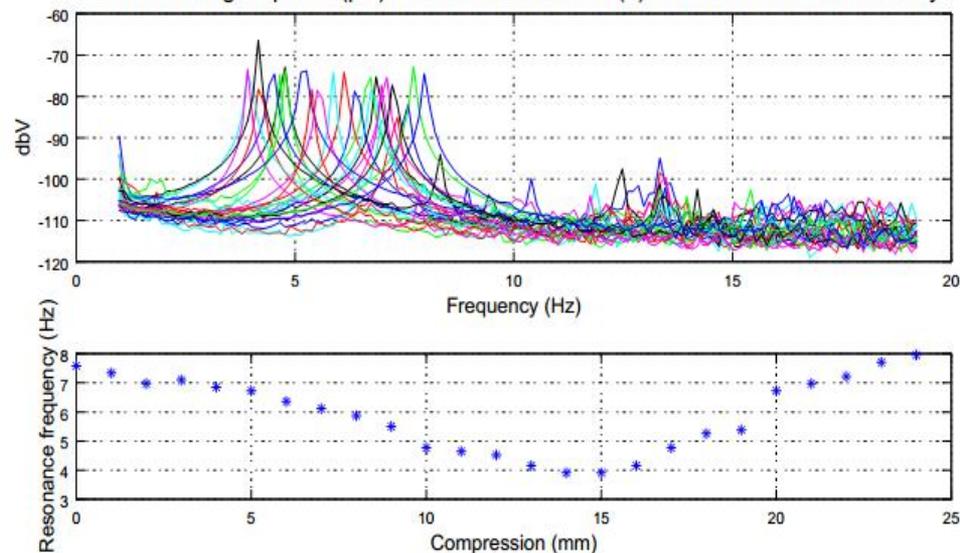
# Antimola geométrica

GAS measuring response - without horizontal compression of blades (v0)

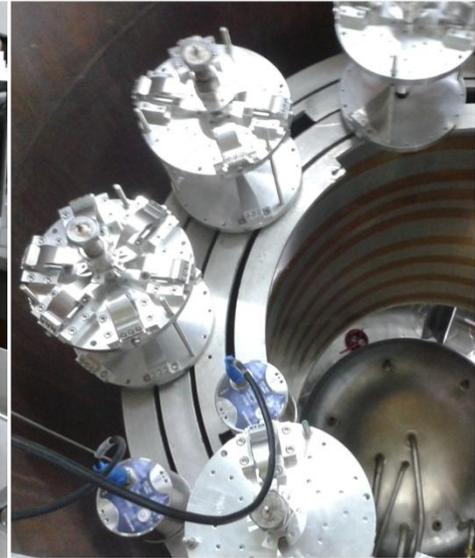
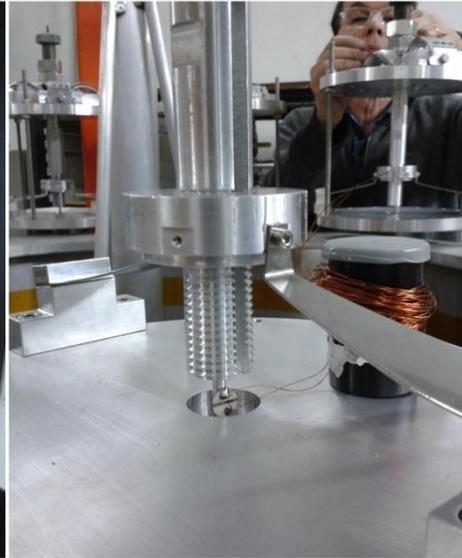
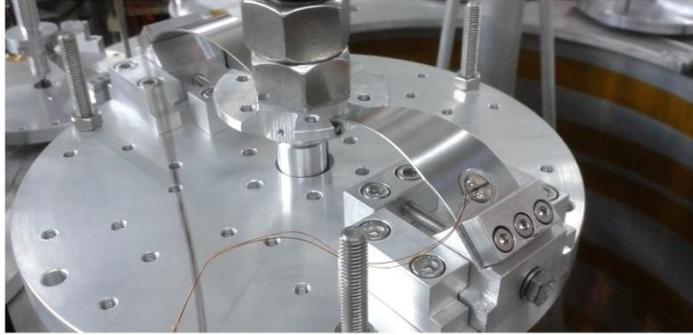


Redução da frequência de ressonância de 7.58 para 3.91 Hz (quase 50%) em zero e 14 cm de compressão horizontal, respectivamente. Em 10 Hz o fator de atenuação seria de 6.5.

GAS measuring response (pzt) - central disc modified (II) and blades screwed sideways

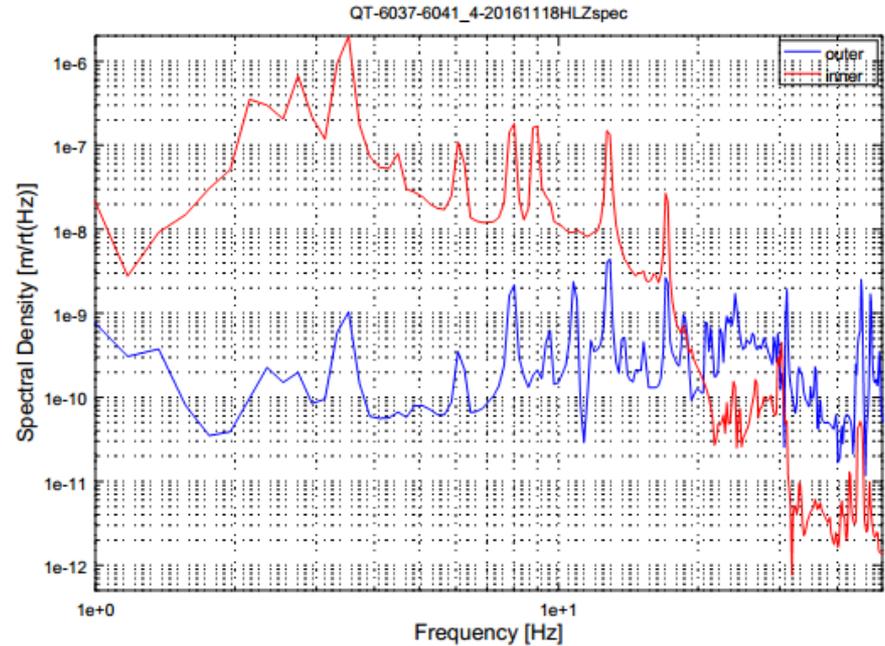


# Multi-Nested Pendula com Antimola Geométrica: testes

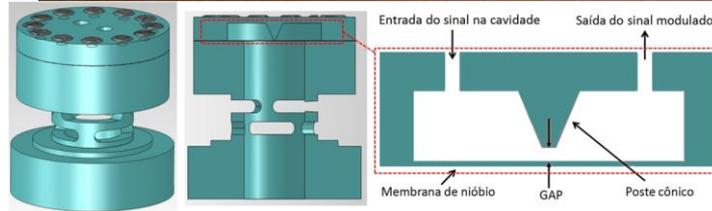
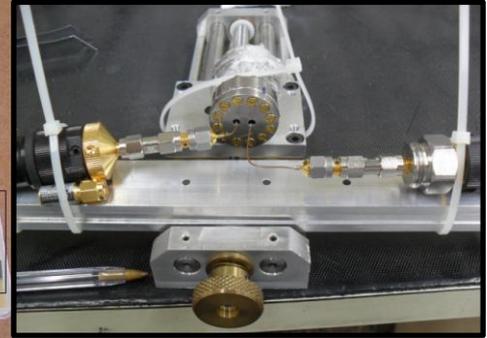
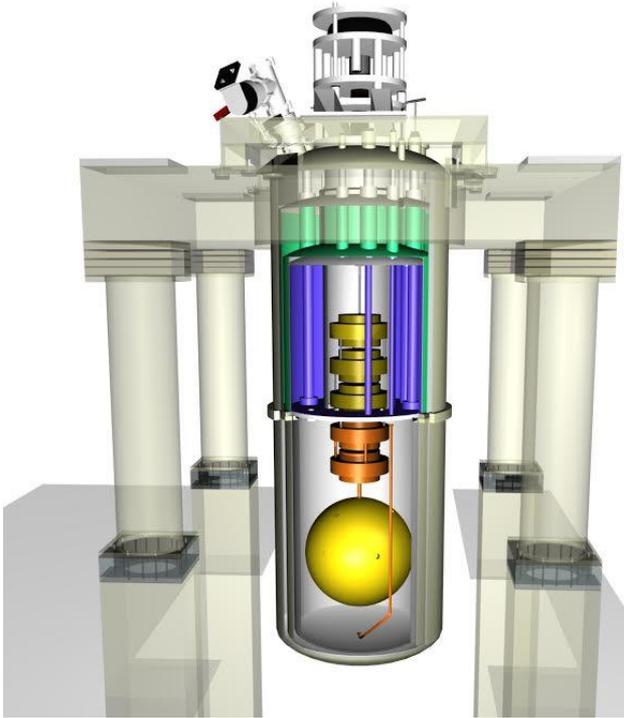




# Multi-Nested Pendula com Antimola Geométrica: ponto de percussão



# Detector Mario Shenberg



Ganho em amplitude  $\sim 10.000$ .  
Ressonância membrana: 3,2 kHz.  
Meta: ressonância elétrica da cavidade em 9,44 GHz.  
Gap de 3 microns.

**FIM**