

# aLIGO LHO Resonances - T1200415-v1 1/21/14

This page is for recording known and expected resonances in the LHO IFOs. Use footnote links (e.g., #quadmono) in any of the last four columns to link to entries in the References section at the bottom of the page, and thence to alog entries, DCC documents and the like.

Periodically archive both a PDF printout of this page and the source to [T1200415](#). See the scripts page for detailed instructions. If any edits are made relative to the last archived version, remove the version number and date from the page heading ("aLIGO LHO Resonances - T1200415-v1 1/21/14" -> "aLIGO LHO Resonances - T1200415").

There are subpages with the same data sorted by  $f_{\text{meas}}$  (/SortedBy\_fmeas) and  $f_{\text{theory}}$  (/SortedBy\_ftheory). Sorting is a manual process so if you've added new data or if you find the the sorted versions are older than the main page (click Info on each page), rerun the scripts and copy and paste the output to the subpages.

## Resonances



### Style

- The first column should have a \* in it if the row is valid data, for the convenience of the scripts.
- Leave cells blank or list multiple items separated by spaces as appropriate. Make each logical item a single lexical word with "\_", e.g., rigid\_body\_modes.
- All empty columns should have a space (| | | | not | | | |), so as not to muck up the layout. Use | | <-12> | | (merge across 12 columns) as a visual separator for groups. Use | | | <-11>Heading | | or the like for a heading.
- IFO is H1, H2, L1 or the like.
- Group is SUS, SEI or the like.
- Location is any relevant vacuum tank(s) or the like.
- System is real or abstract major assemblies affected, e.g., ITMy or acoustic\_noise.
- Subsystem is real or abstract sub assemblies affected, e.g., ETM or rigid\_body\_modes.
- Description is any additional commentary.
- $f_{\text{theory}}$  and  $Q_{\text{theory}}$  are expected values from modeling if known.
- $f_{\text{meas}}$  and  $Q_{\text{meas}}$  are measured values if known.
- Harmonics is a space-separated list of harmonics that were also measured, numbered from fundamental=1. Use - for a range, e.g., 1-12.
- $f_{\text{theory}}$ ,  $Q_{\text{theory}}$ ,  $f_{\text{meas}}$  and  $Q_{\text{meas}}$  may have one or more references, which should be links to anchors (e.g., [ [#myref] ]) in the References section at the end. See the Style box there for conventions about anchor names (e.g., references to the LHO alog should be of the form lho1234).

	IFO	Group	Location	System	Subsystem	Description	$f_{\text{theory}}$ (Hz)	$Q_{\text{theory}}$	$f_{\text{meas}}$ (Hz)	$Q_{\text{meas}}$	Harmonics
	H1 as for HIFO-X.										
*	H1_HIFOX	SUS	BSC1	ITMx_wire_rehang	Rigid_body_modes	modeL1	0.434672 #quadrehang		0.434 #lho3594		
*	H1_HIFOX	SUS	BSC1	ITMx_wire_rehang	Rigid_body_modes	modeT1	0.461331 #quadrehang		0.461 #lho3594		
*	H1_HIFOX	SUS	BSC1	ITMx_wire_rehang	Rigid_body_modes	modeV1	0.548679 #quadrehang		0.535 #lho3594		
*	H1_HIFOX	SUS	BSC1	ITMx_wire_rehang	Rigid_body_modes	modeP1	0.562986 #quadrehang		0.566 #lho3594		
*	H1_HIFOX	SUS	BSC1	ITMx_wire_rehang	Rigid_body_modes	modeY1	0.601232 #quadrehang		0.601 #lho3594		
*	H1_HIFOX	SUS	BSC1	ITMx_wire_rehang	Rigid_body_modes	modeR1	0.838875 #quadrehang		0.871 #lho3594		
*	H1_HIFOX	SUS	BSC1	ITMx_wire_rehang	Rigid_body_modes	modeL2	0.983038 #quadrehang		0.98 #lho3594		
*	H1_HIFOX	SUS	BSC1	ITMx_wire_rehang	Rigid_body_modes	modeT2	1.03606 #quadrehang		1.039 #lho3594		
*	H1_HIFOX	SUS	BSC1	ITMx_wire_rehang	Rigid_body_modes	modeY2	1.36168 #quadrehang		1.363 #lho3594		
*	H1_HIFOX	SUS	BSC1	ITMx_wire_rehang	Rigid_body_modes	modeP2	1.44161 #quadrehang		1.469 #lho3594		
*	H1_HIFOX	SUS	BSC1	ITMx_wire_rehang	Rigid_body_modes	modeL3	2.00486 #quadrehang		2. #lho3594		
*	H1_HIFOX	SUS	BSC1	ITMx_wire_rehang	Rigid_body_modes	modeT3	2.12165 #quadrehang		2.125 #lho3594		
*	H1_HIFOX	SUS	BSC1	ITMx_wire_rehang	Rigid_body_modes	modeV2	2.22184 #quadrehang		2.23 #lho3594		

*	H1_HIFOX	SUS	BSC1	ITMx_wire_rehang	Rigid_body_modes	modeY3	2.38749 #quadrehang	2.418 #lho3594		
*	H1_HIFOX	SUS	BSC1	ITMx_wire_rehang	Rigid_body_modes	modeP3	2.52198 #quadrehang	2.551 #lho3594		
*	H1_HIFOX	SUS	BSC1	ITMx_wire_rehang	Rigid_body_modes	modeR2	2.63003 #quadrehang	2.633 #lho3594		
*	H1_HIFOX	SUS	BSC1	ITMx_wire_rehang	Rigid_body_modes	modeP4	2.84646 #quadrehang	2.828 #lho3594		
*	H1_HIFOX	SUS	BSC1	ITMx_wire_rehang	Rigid_body_modes	modeY4	3.03675 #quadrehang	3.051 #lho3594		
*	H1_HIFOX	SUS	BSC1	ITMx_wire_rehang	Rigid_body_modes	modeR3	3.32094 #quadrehang	3.312 #lho3594		
*	H1_HIFOX	SUS	BSC1	ITMx_wire_rehang	Rigid_body_modes	modeL4	3.4283 #quadrehang	3.414 #lho3594		
*	H1_HIFOX	SUS	BSC1	ITMx_wire_rehang	Rigid_body_modes	modeV3	3.56765 #quadrehang	3.574 #lho3594		
*	H1_HIFOX	SUS	BSC1	ITMx_wire_rehang	Rigid_body_modes	modeT4	5.08241 #quadrehang	5.086 #lho3594		
*	H1_HIFOX	SUS	BSC1	ITMx_wire_rehang	Rigid_body_modes	modeV4	17.1158 #quadrehang			
*	H1_HIFOX	SUS	BSC1	ITMx_wire_rehang	Rigid_body_modes	modeR4	24.011 #quadrehang			
*	H1_HIFOX	SUS	BSC1	CPy	Rigid_body_modes	modeL1	0.459444 #quadcp			
*	H1_HIFOX	SUS	BSC1	CPy	Rigid_body_modes	modeT1	0.489339 #quadcp			
*	H1_HIFOX	SUS	BSC1	CPy	Rigid_body_modes	modeV1	0.550098 #quadcp			
*	H1_HIFOX	SUS	BSC1	CPy	Rigid_body_modes	modeP1	0.611664 #quadcp			
*	H1_HIFOX	SUS	BSC1	CPy	Rigid_body_modes	modeY1	0.664019 #quadcp			
*	H1_HIFOX	SUS	BSC1	CPy	Rigid_body_modes	modeL2	0.80953 #quadcp			
*	H1_HIFOX	SUS	BSC1	CPy	Rigid_body_modes	modeT2	0.815788 #quadcp			
*	H1_HIFOX	SUS	BSC1	CPy	Rigid_body_modes	modeR1	0.87408 #quadcp			
*	H1_HIFOX	SUS	BSC1	CPy	Rigid_body_modes	modeY2	1.34216 #quadcp			
*	H1_HIFOX	SUS	BSC1	CPy	Rigid_body_modes	modeP2	1.34265 #quadcp			
*	H1_HIFOX	SUS	BSC1	CPy	Rigid_body_modes	modeL3	1.90484 #quadcp			
*	H1_HIFOX	SUS	BSC1	CPy	Rigid_body_modes	modeT3	2.02972 #quadcp			
*	H1_HIFOX	SUS	BSC1	CPy	Rigid_body_modes	modeV2	2.22781 #quadcp			
*	H1_HIFOX	SUS	BSC1	CPy	Rigid_body_modes	modeY3	2.23941 #quadcp			
*	H1_HIFOX	SUS	BSC1	CPy	Rigid_body_modes	modeR2	2.63028 #quadcp			
*	H1_HIFOX	SUS	BSC1	CPy	Rigid_body_modes	modeP3	2.72736 #quadcp			
*	H1_HIFOX	SUS	BSC1	CPy	Rigid_body_modes	modeY4	2.95764 #quadcp			
*	H1_HIFOX	SUS	BSC1	CPy	Rigid_body_modes	modeP4	3.28416 #quadcp			
*	H1_HIFOX	SUS	BSC1	CPy	Rigid_body_modes	modeR3	3.31786 #quadcp			
*	H1_HIFOX	SUS	BSC1	CPy	Rigid_body_modes	modeL4	3.40497 #quadcp			
*	H1_HIFOX	SUS	BSC1	CPy	Rigid_body_modes	modeV3	3.58115 #quadcp			

*	H1_HIFOX	SUS	BSC1	CPy	Rigid_body_modes	modeT4	5.04888 #quadcp				
*	H1_HIFOX	SUS	BSC1	CPy	Rigid_body_modes	modeV4	19.7505 #quadcp				
*	H1_HIFOX	SUS	BSC1	CPy	Rigid_body_modes	modeR4	27.8594 #quadcp				
Hopefully final bits of H1.											
*	H1	SUS	BSC10	ETMx	Rigid_body_modes	modeL1	0.434592 #quadmono		0.429 #lho3594		
*	H1	SUS	BSC10	ETMx	Rigid_body_modes	modeT1	0.463358 #quadmono		0.46 #lho3594		
*	H1	SUS	BSC10	ETMx	Rigid_body_modes	modeV1	0.550227 #quadmono		0.535 #lho3594		
*	H1	SUS	BSC10	ETMx	Rigid_body_modes	modeP1	0.563718 #quadmono		0.554 #lho3594		
*	H1	SUS	BSC10	ETMx	Rigid_body_modes	modeY1	0.600815 #quadmono		0.597 #lho3594		
*	H1	SUS	BSC10	ETMx	Rigid_body_modes	modeR1	0.875152 #quadmono		0.882 #lho3594		
*	H1	SUS	BSC10	ETMx	Rigid_body_modes	modeL2	0.997385 #quadmono		0.992 #lho3594		
*	H1	SUS	BSC10	ETMx	Rigid_body_modes	modeT2	1.04738 #quadmono		1.039 #lho3594		
*	H1	SUS	BSC10	ETMx	Rigid_body_modes	modeP2	1.31272 #quadmono		1.292 #lho3594		
*	H1	SUS	BSC10	ETMx	Rigid_body_modes	modeY2	1.35431 #quadmono		1.351 #lho3594		
*	H1	SUS	BSC10	ETMx	Rigid_body_modes	modeP3	1.60487 #quadmono		1.621 #lho3594		
*	H1	SUS	BSC10	ETMx	Rigid_body_modes	modeL3	2.00573 #quadmono		1.992 #lho3594		
*	H1	SUS	BSC10	ETMx	Rigid_body_modes	modeT3	2.12242 #quadmono		2.125 #lho3594		
*	H1	SUS	BSC10	ETMx	Rigid_body_modes	modeV2	2.21615 #quadmono		2.261 #lho3594		
*	H1	SUS	BSC10	ETMx	Rigid_body_modes	modeY3	2.39316 #quadmono		2.398 #lho3594		
*	H1	SUS	BSC10	ETMx	Rigid_body_modes	modeR2	2.63331 #quadmono		2.648 #lho3594		
*	H1	SUS	BSC10	ETMx	Rigid_body_modes	modeP4	2.81327 #quadmono		2.812 #lho3594		
*	H1	SUS	BSC10	ETMx	Rigid_body_modes	modeY4	3.05151 #quadmono		3.047 #lho3594		
*	H1	SUS	BSC10	ETMx	Rigid_body_modes	modeR3	3.31788 #quadmono		3.324 #lho3594		
*	H1	SUS	BSC10	ETMx	Rigid_body_modes	modeL4	3.41638 #quadmono		3.441 #lho3594		
*	H1	SUS	BSC10	ETMx	Rigid_body_modes	modeV3	3.55819 #quadmono		3.609 #lho3594		
*	H1	SUS	BSC10	ETMx	Rigid_body_modes	modeT4	5.07092 #quadmono		5.121 #lho3594		
*	H1	SUS	BSC10	ETMx	Rigid_body_modes	modeV4	9.26975 #quadmono				
*	H1	SUS	BSC10	ETMx	Rigid_body_modes	modeR4	13.1739 #quadmono				
*	H1	SUS	BSC10	ERMx	Rigid_body_modes	modeL1	0.450845 #quaderm				
*	H1	SUS	BSC10	ERMx	Rigid_body_modes	modeT1	0.479208 #quaderm				
*	H1	SUS	BSC10	ERMx	Rigid_body_modes	modeV1	0.550444 #quaderm				
*	H1	SUS	BSC10	ERMx	Rigid_body_modes	modeP1	0.60238 #quaderm				
							0.648033				

*	H1	SUS	BSC10	ERMx	Rigid_body_modes	modeY1	#quaderm				
*	H1	SUS	BSC10	ERMx	Rigid_body_modes	modeR1	0.834372 #quaderm				
*	H1	SUS	BSC10	ERMx	Rigid_body_modes	modeL2	0.859087 #quaderm				
*	H1	SUS	BSC10	ERMx	Rigid_body_modes	modeT2	0.907233 #quaderm				
*	H1	SUS	BSC10	ERMx	Rigid_body_modes	modeP2	1.33693 #quaderm				
*	H1	SUS	BSC10	ERMx	Rigid_body_modes	modeY2	1.34081 #quaderm				
*	H1	SUS	BSC10	ERMx	Rigid_body_modes	modeL3	1.92516 #quaderm				
*	H1	SUS	BSC10	ERMx	Rigid_body_modes	modeT3	2.0476 #quaderm				
*	H1	SUS	BSC10	ERMx	Rigid_body_modes	modeV2	2.2276 #quaderm				
*	H1	SUS	BSC10	ERMx	Rigid_body_modes	modeY3	2.28221 #quaderm				
*	H1	SUS	BSC10	ERMx	Rigid_body_modes	modeR2	2.62396 #quaderm				
*	H1	SUS	BSC10	ERMx	Rigid_body_modes	modeP3	2.70885 #quaderm				
*	H1	SUS	BSC10	ERMx	Rigid_body_modes	modeY4	2.97614 #quaderm				
*	H1	SUS	BSC10	ERMx	Rigid_body_modes	modeP4	2.98639 #quaderm				
*	H1	SUS	BSC10	ERMx	Rigid_body_modes	modeR3	3.31274 #quaderm				
*	H1	SUS	BSC10	ERMx	Rigid_body_modes	modeL4	3.40455 #quaderm				
*	H1	SUS	BSC10	ERMx	Rigid_body_modes	modeV3	3.58064 #quaderm				
*	H1	SUS	BSC10	ERMx	Rigid_body_modes	modeT4	5.04715 #quaderm				
*	H1	SUS	BSC10	ERMx	Rigid_body_modes	modeV4	18.3013 #quaderm				
*	H1	SUS	BSC10	ERMx	Rigid_body_modes	modeR4	25.6281 #quaderm				

Clone this group and customize for individual HSTs as they're measured.

*	H1	SUS	HAM2 HAM3 HAM4 HAM5	IMC1 IMC2 IMC3 PR2 PRM SR2 SRM	Rigid_body_modes	modeL1	0.672497 #hsts				
*	H1	SUS	HAM2 HAM3 HAM4 HAM5	IMC1 IMC2 IMC3 PR2 PRM SR2 SRM	Rigid_body_modes	modeT1	0.675834 #hsts				
*	H1	SUS	HAM2 HAM3 HAM4 HAM5	IMC1 IMC2 IMC3 PR2 PRM SR2 SRM	Rigid_body_modes	modeV1	0.848391 #hsts				
*	H1	SUS	HAM2 HAM3 HAM4 HAM5	IMC1 IMC2 IMC3 PR2 PRM SR2 SRM	Rigid_body_modes	modeP1	1.0051 #hsts				
*	H1	SUS	HAM2 HAM3 HAM4 HAM5	IMC1 IMC2 IMC3 PR2 PRM SR2 SRM	Rigid_body_modes	modeY1	1.09179 #hsts				
*	H1	SUS	HAM2 HAM3 HAM4 HAM5	IMC1 IMC2 IMC3 PR2 PRM SR2 SRM	Rigid_body_modes	modeR1	1.51197 #hsts				
			HAM2 HAM3	IMC1 IMC2 IMC3			1.51559				

*	H1	SUS	HAM4 HAM5	PR2 PRM SR2 SRM	Rigid_body_modes	modeL2	#hsts				
*	H1	SUS	HAM2 HAM3 HAM4 HAM5	IMC1 IMC2 IMC3 PR2 PRM SR2 SRM	Rigid_body_modes	modeT2	1.52673 #hsts				
*	H1	SUS	HAM2 HAM3 HAM4 HAM5	IMC1 IMC2 IMC3 PR2 PRM SR2 SRM	Rigid_body_modes	modeY2	2.0381 #hsts				
*	H1	SUS	HAM2 HAM3 HAM4 HAM5	IMC1 IMC2 IMC3 PR2 PRM SR2 SRM	Rigid_body_modes	modeR2	2.18447 #hsts				
*	H1	SUS	HAM2 HAM3 HAM4 HAM5	IMC1 IMC2 IMC3 PR2 PRM SR2 SRM	Rigid_body_modes	modeV2	2.76171 #hsts				
*	H1	SUS	HAM2 HAM3 HAM4 HAM5	IMC1 IMC2 IMC3 PR2 PRM SR2 SRM	Rigid_body_modes	modeL3	2.80671 #hsts				
*	H1	SUS	HAM2 HAM3 HAM4 HAM5	IMC1 IMC2 IMC3 PR2 PRM SR2 SRM	Rigid_body_modes	modeT3	2.98169 #hsts				
*	H1	SUS	HAM2 HAM3 HAM4 HAM5	IMC1 IMC2 IMC3 PR2 PRM SR2 SRM	Rigid_body_modes	modeP2	3.20926 #hsts				
*	H1	SUS	HAM2 HAM3 HAM4 HAM5	IMC1 IMC2 IMC3 PR2 PRM SR2 SRM	Rigid_body_modes	modeY3	3.42401 #hsts				
*	H1	SUS	HAM2 HAM3 HAM4 HAM5	IMC1 IMC2 IMC3 PR2 PRM SR2 SRM	Rigid_body_modes	modeP3	3.78136 #hsts				
*	H1	SUS	HAM2 HAM3 HAM4 HAM5	IMC1 IMC2 IMC3 PR2 PRM SR2 SRM	Rigid_body_modes	modeV3	27.3201 #hsts				
*	H1	SUS	HAM2 HAM3 HAM4 HAM5	IMC1 IMC2 IMC3 PR2 PRM SR2 SRM	Rigid_body_modes	modeR3	40.369 #hsts				

Clone this group and customize for individual HLTs as they're measured.

*	H1	SUS	HAM2 HAM5	PR3 SR3	Rigid_body_modes	modeP1	0.659538 #hlts				
*	H1	SUS	HAM2 HAM5	PR3 SR3	Rigid_body_modes	modeT1	0.692337 #hlts				
*	H1	SUS	HAM2 HAM5	PR3 SR3	Rigid_body_modes	modeL1	0.744758 #hlts				
*	H1	SUS	HAM2 HAM5	PR3 SR3	Rigid_body_modes	modeY1	0.989521 #hlts				
*	H1	SUS	HAM2 HAM5	PR3 SR3	Rigid_body_modes	modeV1	1.06994 #hlts				
*	H1	SUS	HAM2 HAM5	PR3 SR3	Rigid_body_modes	modeR1	1.50732 #hlts				
*	H1	SUS	HAM2 HAM5	PR3 SR3	Rigid_body_modes	modeL2	1.5814 #hlts				
*	H1	SUS	HAM2 HAM5	PR3 SR3	Rigid_body_modes	modeR2	1.97903 #hlts				
*	H1	SUS	HAM2 HAM5	PR3 SR3	Rigid_body_modes	modeP2	2.12717 #hlts				
*	H1	SUS	HAM2 HAM5	PR3 SR3	Rigid_body_modes	modeY2	2.23634 #hlts				
*	H1	SUS	HAM2 HAM5	PR3 SR3	Rigid_body_modes	modeT2	2.50427 #hlts				

*	H1	SUS	HAM2 HAM5	PR3 SR3	Rigid_body_modes	modeL3	2.85421 #hlts				
*	H1	SUS	HAM2 HAM5	PR3 SR3	Rigid_body_modes	modeY3	3.34348 #hlts				
*	H1	SUS	HAM2 HAM5	PR3 SR3	Rigid_body_modes	modeV2	3.50334 #hlts				
*	H1	SUS	HAM2 HAM5	PR3 SR3	Rigid_body_modes	modeP3	3.51862 #hlts				
*	H1	SUS	HAM2 HAM5	PR3 SR3	Rigid_body_modes	modeT3	3.68116 #hlts				
*	H1	SUS	HAM2 HAM5	PR3 SR3	Rigid_body_modes	modeV3	28.1003 #hlts				
*	H1	SUS	HAM2 HAM5	PR3 SR3	Rigid_body_modes	modeR3	44.7247 #hlts				
*	H1	SUS	BSC2	BS	Rigid_body_modes	modeL1	0.419315 #bsfm				
*	H1	SUS	BSC2	BS	Rigid_body_modes	modeT1	0.423602 #bsfm				
*	H1	SUS	BSC2	BS	Rigid_body_modes	modeP1	0.468279 #bsfm				
*	H1	SUS	BSC2	BS	Rigid_body_modes	modeY1	0.493035 #bsfm				
*	H1	SUS	BSC2	BS	Rigid_body_modes	modeR1	1.0506 #bsfm				
*	H1	SUS	BSC2	BS	Rigid_body_modes	modeL2	1.05136 #bsfm				
*	H1	SUS	BSC2	BS	Rigid_body_modes	modeP2	1.07596 #bsfm				
*	H1	SUS	BSC2	BS	Rigid_body_modes	modeV1	1.08389 #bsfm				
*	H1	SUS	BSC2	BS	Rigid_body_modes	modeP3	1.3915 #bsfm				
*	H1	SUS	BSC2	BS	Rigid_body_modes	modeY2	1.3963 #bsfm				
*	H1	SUS	BSC2	BS	Rigid_body_modes	modeT2	1.55266 #bsfm				
*	H1	SUS	BSC2	BS	Rigid_body_modes	modeL3	1.69857 #bsfm				
*	H1	SUS	BSC2	BS	Rigid_body_modes	modeT3	2.18939 #bsfm				
*	H1	SUS	BSC2	BS	Rigid_body_modes	modeY3	2.25325 #bsfm				
*	H1	SUS	BSC2	BS	Rigid_body_modes	modeR2	3.20625 #bsfm				
*	H1	SUS	BSC2	BS	Rigid_body_modes	modeV2	3.76046 #bsfm				
*	H1	SUS	BSC2	BS	Rigid_body_modes	modeV3	17.5222 #bsfm				
*	H1	SUS	BSC2	BS	Rigid_body_modes	modeR3	25.9715 #bsfm				
H2 as for One Arm Test.											
*	H2_OAT	SUS	BSC8	ITMy_wire_rehang	Rigid_body_modes	modeL1	0.434672 #quadrehang		0.434 #lho3594		
*	H2_OAT	SUS	BSC8	ITMy_wire_rehang	Rigid_body_modes	modeT1	0.461331 #quadrehang		0.461 #lho3594		
*	H2_OAT	SUS	BSC8	ITMy_wire_rehang	Rigid_body_modes	modeV1	0.548679 #quadrehang		0.535 #lho3594		
*	H2_OAT	SUS	BSC8	ITMy_wire_rehang	Rigid_body_modes	modeP1	0.562986 #quadrehang		0.566 #lho3594		
*	H2_OAT	SUS	BSC8	ITMy_wire_rehang	Rigid_body_modes	modeY1	0.601232 #quadrehang		0.601 #lho3594		
*	H2_OAT	SUS	BSC8	ITMy_wire_rehang	Rigid_body_modes	modeR1	0.838875 #quadrehang		0.871 #lho3594		
							0.983038		0.98		

*	H2_OAT	SUS	BSC8	ITMy_wire_rehang	Rigid_body_modes	modeL2	#quadrehang		#lho3594		
*	H2_OAT	SUS	BSC8	ITMy_wire_rehang	Rigid_body_modes	modeT2	1.03606 #quadrehang		1.039 #lho3594		
*	H2_OAT	SUS	BSC8	ITMy_wire_rehang	Rigid_body_modes	modeY2	1.36168 #quadrehang		1.363 #lho3594		
*	H2_OAT	SUS	BSC8	ITMy_wire_rehang	Rigid_body_modes	modeP2	1.44161 #quadrehang		1.469 #lho3594		
*	H2_OAT	SUS	BSC8	ITMy_wire_rehang	Rigid_body_modes	modeL3	2.00486 #quadrehang		2. #lho3594		
*	H2_OAT	SUS	BSC8	ITMy_wire_rehang	Rigid_body_modes	modeT3	2.12165 #quadrehang		2.125 #lho3594		
*	H2_OAT	SUS	BSC8	ITMy_wire_rehang	Rigid_body_modes	modeV2	2.22184 #quadrehang		2.23 #lho3594		
*	H2_OAT	SUS	BSC8	ITMy_wire_rehang	Rigid_body_modes	modeY3	2.38749 #quadrehang		2.418 #lho3594		
*	H2_OAT	SUS	BSC8	ITMy_wire_rehang	Rigid_body_modes	modeP3	2.52198 #quadrehang		2.551 #lho3594		
*	H2_OAT	SUS	BSC8	ITMy_wire_rehang	Rigid_body_modes	modeR2	2.63003 #quadrehang		2.633 #lho3594		
*	H2_OAT	SUS	BSC8	ITMy_wire_rehang	Rigid_body_modes	modeP4	2.84646 #quadrehang		2.828 #lho3594		
*	H2_OAT	SUS	BSC8	ITMy_wire_rehang	Rigid_body_modes	modeY4	3.03675 #quadrehang		3.051 #lho3594		
*	H2_OAT	SUS	BSC8	ITMy_wire_rehang	Rigid_body_modes	modeR3	3.32094 #quadrehang		3.312 #lho3594		
*	H2_OAT	SUS	BSC8	ITMy_wire_rehang	Rigid_body_modes	modeL4	3.4283 #quadrehang		3.414 #lho3594		
*	H2_OAT	SUS	BSC8	ITMy_wire_rehang	Rigid_body_modes	modeV3	3.56765 #quadrehang		3.574 #lho3594		
*	H2_OAT	SUS	BSC8	ITMy_wire_rehang	Rigid_body_modes	modeT4	5.08241 #quadrehang		5.086 #lho3594		
*	H2_OAT	SUS	BSC8	ITMy_wire_rehang	Rigid_body_modes	modeV4	17.1158 #quadrehang				
*	H2_OAT	SUS	BSC8	ITMy_wire_rehang	Rigid_body_modes	modeR4	24.011 #quadrehang				
*	H2_OAT	SUS	BSC8	CPy	Rigid_body_modes	modeL1	0.459444 #quadcp				
*	H2_OAT	SUS	BSC8	CPy	Rigid_body_modes	modeT1	0.489339 #quadcp				
*	H2_OAT	SUS	BSC8	CPy	Rigid_body_modes	modeV1	0.550098 #quadcp				
*	H2_OAT	SUS	BSC8	CPy	Rigid_body_modes	modeP1	0.611664 #quadcp				
*	H2_OAT	SUS	BSC8	CPy	Rigid_body_modes	modeY1	0.664019 #quadcp				
*	H2_OAT	SUS	BSC8	CPy	Rigid_body_modes	modeL2	0.80953 #quadcp				
*	H2_OAT	SUS	BSC8	CPy	Rigid_body_modes	modeT2	0.815788 #quadcp				
*	H2_OAT	SUS	BSC8	CPy	Rigid_body_modes	modeR1	0.87408 #quadcp				
*	H2_OAT	SUS	BSC8	CPy	Rigid_body_modes	modeY2	1.34216 #quadcp				
*	H2_OAT	SUS	BSC8	CPy	Rigid_body_modes	modeP2	1.34265 #quadcp				
*	H2_OAT	SUS	BSC8	CPy	Rigid_body_modes	modeL3	1.90484 #quadcp				
*	H2_OAT	SUS	BSC8	CPy	Rigid_body_modes	modeT3	2.02972 #quadcp				
*	H2_OAT	SUS	BSC8	CPy	Rigid_body_modes	modeV2	2.22781 #quadcp				
*	H2_OAT	SUS	BSC8	CPy	Rigid_body_modes	modeY3	2.23941 #quadcp				
*	H2_OAT	SUS	BSC8	CPy	Rigid_body_modes	modeR2	2.63028 #quadcp				

*	H2_OAT	SUS	BSC8	CPy	Rigid_body_modes	modeP3	2.72736 #quadcp				
*	H2_OAT	SUS	BSC8	CPy	Rigid_body_modes	modeY4	2.95764 #quadcp				
*	H2_OAT	SUS	BSC8	CPy	Rigid_body_modes	modeP4	3.28416 #quadcp				
*	H2_OAT	SUS	BSC8	CPy	Rigid_body_modes	modeR3	3.31786 #quadcp				
*	H2_OAT	SUS	BSC8	CPy	Rigid_body_modes	modeL4	3.40497 #quadcp				
*	H2_OAT	SUS	BSC8	CPy	Rigid_body_modes	modeV3	3.58115 #quadcp				
*	H2_OAT	SUS	BSC8	CPy	Rigid_body_modes	modeT4	5.04888 #quadcp				
*	H2_OAT	SUS	BSC8	CPy	Rigid_body_modes	modeV4	19.7505 #quadcp				
*	H2_OAT	SUS	BSC8	CPy	Rigid_body_modes	modeR4	27.8594 #quadcp				
*	H2_OAT	SUS	BSC6	ETMy	Rigid_body_modes	modeL1	0.434592 #quadmono	0.429 #lho3594			
*	H2_OAT	SUS	BSC6	ETMy	Rigid_body_modes	modeT1	0.463358 #quadmono	0.46 #lho3594			
*	H2_OAT	SUS	BSC6	ETMy	Rigid_body_modes	modeV1	0.550227 #quadmono	0.535 #lho3594			
*	H2_OAT	SUS	BSC6	ETMy	Rigid_body_modes	modeP1	0.563718 #quadmono	0.554 #lho3594			
*	H2_OAT	SUS	BSC6	ETMy	Rigid_body_modes	modeY1	0.600815 #quadmono	0.597 #lho3594			
*	H2_OAT	SUS	BSC6	ETMy	Rigid_body_modes	modeR1	0.875152 #quadmono	0.882 #lho3594			
*	H2_OAT	SUS	BSC6	ETMy	Rigid_body_modes	modeL2	0.997385 #quadmono	0.992 #lho3594			
*	H2_OAT	SUS	BSC6	ETMy	Rigid_body_modes	modeT2	1.04738 #quadmono	1.039 #lho3594			
*	H2_OAT	SUS	BSC6	ETMy	Rigid_body_modes	modeP2	1.31272 #quadmono	1.292 #lho3594			
*	H2_OAT	SUS	BSC6	ETMy	Rigid_body_modes	modeY2	1.35431 #quadmono	1.351 #lho3594			
*	H2_OAT	SUS	BSC6	ETMy	Rigid_body_modes	modeP3	1.60487 #quadmono	1.621 #lho3594			
*	H2_OAT	SUS	BSC6	ETMy	Rigid_body_modes	modeL3	2.00573 #quadmono	1.992 #lho3594			
*	H2_OAT	SUS	BSC6	ETMy	Rigid_body_modes	modeT3	2.12242 #quadmono	2.125 #lho3594			
*	H2_OAT	SUS	BSC6	ETMy	Rigid_body_modes	modeV2	2.21615 #quadmono	2.261 #lho3594			
*	H2_OAT	SUS	BSC6	ETMy	Rigid_body_modes	modeY3	2.39316 #quadmono	2.398 #lho3594			
*	H2_OAT	SUS	BSC6	ETMy	Rigid_body_modes	modeR2	2.63331 #quadmono	2.648 #lho3594			
*	H2_OAT	SUS	BSC6	ETMy	Rigid_body_modes	modeP4	2.81327 #quadmono	2.812 #lho3594			
*	H2_OAT	SUS	BSC6	ETMy	Rigid_body_modes	modeY4	3.05151 #quadmono	3.047 #lho3594			
*	H2_OAT	SUS	BSC6	ETMy	Rigid_body_modes	modeR3	3.31788 #quadmono	3.324 #lho3594			
*	H2_OAT	SUS	BSC6	ETMy	Rigid_body_modes	modeL4	3.41638 #quadmono	3.441 #lho3594			
*	H2_OAT	SUS	BSC6	ETMy	Rigid_body_modes	modeV3	3.55819 #quadmono	3.609 #lho3594			
*	H2_OAT	SUS	BSC6	ETMy	Rigid_body_modes	modeT4	5.07092 #quadmono	5.121 #lho3594			
*	H2_OAT	SUS	BSC6	ETMy	Rigid_body_modes	modeV4	9.26975 #quadmono				
*	H2_OAT	SUS	BSC6	ETMy	Rigid_body_modes	modeR4	13.1739 #quadmono				



*	H2_OAT	SUS	BSC6	ERMy	Rigid_body_modes	modeL1	0.450845 #quaderm				
*	H2_OAT	SUS	BSC6	ERMy	Rigid_body_modes	modeT1	0.479208 #quaderm				
*	H2_OAT	SUS	BSC6	ERMy	Rigid_body_modes	modeV1	0.550444 #quaderm				
*	H2_OAT	SUS	BSC6	ERMy	Rigid_body_modes	modeP1	0.60238 #quaderm				
*	H2_OAT	SUS	BSC6	ERMy	Rigid_body_modes	modeY1	0.648033 #quaderm				
*	H2_OAT	SUS	BSC6	ERMy	Rigid_body_modes	modeR1	0.834372 #quaderm				
*	H2_OAT	SUS	BSC6	ERMy	Rigid_body_modes	modeL2	0.859087 #quaderm				
*	H2_OAT	SUS	BSC6	ERMy	Rigid_body_modes	modeT2	0.907233 #quaderm				
*	H2_OAT	SUS	BSC6	ERMy	Rigid_body_modes	modeP2	1.33693 #quaderm				
*	H2_OAT	SUS	BSC6	ERMy	Rigid_body_modes	modeY2	1.34081 #quaderm				
*	H2_OAT	SUS	BSC6	ERMy	Rigid_body_modes	modeL3	1.92516 #quaderm				
*	H2_OAT	SUS	BSC6	ERMy	Rigid_body_modes	modeT3	2.0476 #quaderm				
*	H2_OAT	SUS	BSC6	ERMy	Rigid_body_modes	modeV2	2.2276 #quaderm				
*	H2_OAT	SUS	BSC6	ERMy	Rigid_body_modes	modeY3	2.28221 #quaderm				
*	H2_OAT	SUS	BSC6	ERMy	Rigid_body_modes	modeR2	2.62396 #quaderm				
*	H2_OAT	SUS	BSC6	ERMy	Rigid_body_modes	modeP3	2.70885 #quaderm				
*	H2_OAT	SUS	BSC6	ERMy	Rigid_body_modes	modeY4	2.97614 #quaderm				
*	H2_OAT	SUS	BSC6	ERMy	Rigid_body_modes	modeP4	2.98639 #quaderm				
*	H2_OAT	SUS	BSC6	ERMy	Rigid_body_modes	modeR3	3.31274 #quaderm				
*	H2_OAT	SUS	BSC6	ERMy	Rigid_body_modes	modeL4	3.40455 #quaderm				
*	H2_OAT	SUS	BSC6	ERMy	Rigid_body_modes	modeV3	3.58064 #quaderm				
*	H2_OAT	SUS	BSC6	ERMy	Rigid_body_modes	modeT4	5.04715 #quaderm				
*	H2_OAT	SUS	BSC6	ERMy	Rigid_body_modes	modeV4	18.3013 #quaderm				
*	H2_OAT	SUS	BSC6	ERMy	Rigid_body_modes	modeR4	25.6281 #quaderm				

Combs from H2 OAT Line Study

*	H2_OAT	IFO				A mains power			60.0 #lho4327		1-15
*	H2_OAT	IFO				B laser reference cavity			2.745 #lho4327		1-5
*	H2_OAT	IFO				C cf LVEA seis/mag			19.62 #lho4327		1-2
*	H2_OAT	IFO				D cf EY seis/mag/accel/mic			56.84065 #lho4327		1-11
*	H2_OAT	IFO				E			68.59 #lho4327		1-2
*	H2_OAT	IFO				F			72.09 #lho4327		1-2
*	H2_OAT	IFO				G cf EY mag/accel			77.54 #lho4327		1-12

*	H2_OAT	IFO				H cf EY accel			78.00 #lho4327	1-4
*	H2_OAT	IFO				I cf EY accel			89.415 #lho4327	1-9
*	H2_OAT	IFO				J cf LVEA seis/mag/mic			90.29 #lho4327	1-10
*	H2_OAT	IFO				K			100.678 #lho4327	1-2
*	H2_OAT	IFO				L			105.91 #lho4327	1-5
*	H2_OAT	IFO				M			118.59 #lho4327	1-6
*	H2_OAT	IFO				N			120.7 #lho4327	1-5
*	H2_OAT	IFO				O			279.60 #lho4327	1-3
*	H2_OAT	IFO				P			289.48 #lho4327	1-3
Singletons from H2 OAT Line Study										
*	H2_OAT	IFO				X1 laser reference cavity			4.012 #lho4327	
*	H2_OAT	IFO	LVEA			X2 cv LVEA seis/mag			4.294 #lho4327	
*	H2_OAT	IFO				X3 ?			12.08 #lho4327	
*	H2_OAT	IFO				X4 ?			16.36 #lho4327	
*	H2_OAT	IFO				X5 ?			18.83 #lho4327	
*	H2_OAT	IFO				X6 ?			28.28 #lho4327	
*	H2_OAT	IFO	LVEA EY			X7 cf LVEA/EY seis/mag/accel			29.625 #lho4327	
*	H2_OAT	IFO				X8 ?			29.78 #lho4327	
*	H2_OAT	IFO				X9 ?			30.18 #lho4327	
*	H2_OAT	IFO	LVEA			X10 cf LVEA seis/mag/accel/mic			30.86 #lho4327	
*	H2_OAT	IFO				X11 ?			32.73 #lho4327	
*	H2_OAT	IFO				X12 ?			41.88 #lho4327	
*	H2_OAT	IFO	LVEA			X13 cf LVEA seis/mag/mic			48.02 #lho4327	
*	H2_OAT	IFO	EY			X14 cf EY seis/mag/accel/mic			49.01 #lho4327	
*	H2_OAT	IFO	LVEA EY			X15 cf LVEA/EY seis/accel			72.37 #lho4327	
*	H2_OAT	IFO				X16 ?			117.455 #lho4327	
*	H2_OAT	IFO				X17 ?			138.9 #lho4327	
*	H2_OAT	IFO				X18 ?			151.02 #lho4327	
*	H2_OAT	IFO				X19 ?			157.75 #lho4327	
*	H2_OAT	IFO				X20 ?			167.018 #lho4327	
*	H2_OAT	IFO				X21 ?			167.80 #lho4327	
*	H2_OAT	IFO				X22 ?			170.93 #lho4327	
*	H2_OAT	IFO				X23 ?			179.73 #lho4327	

*	H2_OAT	IFO				X24 ?			343.05 #lho4327		
*	H2_OAT	IFO				X25 ?			517.5 #lho4327		
*	H2_OAT	IFO				X26 ?			586.3 #lho4327		
*	H2_OAT	IFO				X27 ?			625.9 #lho4327		
*	H2_OAT	IFO				X28 ?			685.0 #lho4327		
*	H2_OAT	IFO				X29 ?			724.2 #lho4327		
*	H2_OAT	IFO				X30 ?			785.1 #lho4327		
*	H2_OAT	IFO				X31 ?			789.9 #lho4327		
*	H2_OAT	IFO				X32 ?			822.5 #lho4327		
*	H2_OAT	IFO				X33 ?			891.2 #lho4327		
*	H2_OAT	IFO	EY			X34 cf EY seis/mag/accel/mic			966.291 #lho4327		

## References



### Style

- Column 1 should have a % in it if the row is valid data, for the convenience of the scripts. Otherwise it should have a space, so as not to muck up the layout. Use `||<-3>|` (merge across 3 columns) to separate groups if desired. Use `|| |<-2>Heading|` or the like for a heading.
- For all references, please create an anchor with an appropriate name in column 2 of the table. Then, still in column 2, repeat the name as the link text of a hyperlink so it's visible and takes the user to the reference. Put some description in column 3 so the user knows whether it's worthwhile clicking through.
- For alog entries use an anchor name of the form lho123 or llo321 and link to the respective alog.
- For DCC references, use the DCC number as the anchor and link to the DCC file card. If the version of the document is important, include the version, e.g., -v1 in the anchor name, and link to the specific version.
- *Probably need additional conventions, e.g., for wiki pages.*

%	<a href="#">lho3594</a>	H1 ETMy/ITMy dangle test measurement by Szymon
%	<a href="#">quadmono</a>	Mathematica model 20120601TMproductionTM (generic monolithic)
%	<a href="#">quaderm</a>	Mathematica model 20120831TMproductionERM (ERM version of reaction chain; CP value of thickness for the optic and consequent wrong MOIs in 6/1/12 version corrected)
%	<a href="#">quadrehang</a>	Mathematica model 20120601TMproductionTMrehang (H1 ITMy as rehung on wires)
%	<a href="#">quadcp</a>	Mathematica model 20120831TMproductionCP (CP version of reaction chain)
%	<a href="#">hsts</a>	Mathematica model 20120120hsts (generic HSTS)
%	<a href="#">hlts</a>	Mathematica model 20120120hlts (generic HLTS)
%	<a href="#">bsfm</a>	Mathematica model 20120120bsNW (generic BSFM)
%	<a href="#">lho4327</a>	Keith Riles et al. OAT line study

Example of a Heading	
<a href="#">llo321</a>	Example of reference to LLO alog
<a href="#">T060284</a>	Example of DCC reference
<a href="#">E1200211-v7</a>	Example of DCC reference to specific version