

GWADW Controls Workshop									
NOTE: EACH TIME SLOT MUST INCLUDE TIME FOR DISCUSSION									
Session	Day	Start	End	Duration	Session Title	Topic/Talk	Person	Confirmed time slot is ok?	Related Documents and information
–	Mon	11:55	12:20	0:25	<b>Controls Workshop Goals</b>	General Introduction	Dennis Coyne/Fabrice Matichard	Y	G1500454 Controls Workshop at the GWADW 2015
A	Tues	9:00	10:30	1:30	<b>System identification and modern Control</b>	Coordinating/Leading discussion	Dennis Coyne/Fabrice Matichard/Brett Shapiro	Y	
		9:00	9:15	0:15		Overview of System ID techniques & setting the session goals	Dennis Coyne	Y	
		9:15	9:35	0:20		System ID for Suspensions & Seismic Isolation Systems	Brett Shapiro	Y	
		9:35	9:55	0:20		System ID at VIRGO	Bas Swinkels		
		9:55	10:15	0:20		Cross couplings in suspensions and seismic platforms	Anamaria Effler	Y	
		10:15	10:30	0:15		Sys ID for Modern Control	Combined effort of Brett, Jo, Giancarlo and Sebastien		
B	Tues	11:00	12:30	1:30	<b>Optimal feedback</b>	Coordinating/Leading discussion	Dennis Coyne/Fabrice Matichard	Y	
		11:00	11:20	0:20		Introduction talk (review of modern control tools, state space methods, their pros and cons)	Den Martynov	Y	
		11:20	11:40	0:20		Discussion and comparison of classical and modern control techniques	Christophe Collette	Y	
		11:40	11:55	0:15		Summary of the Caltech Workshop	Gabriele	Y	
		11:55	12:15	0:20		Kalman filtering for vibration isolation	Jo van den Brand		
		12:15	12:30	0:15		Suspension Controls, including thoughts on applicability of modern controls	Brett Shapiro	Y	
C	Tues	4:00	6:00	2:00	<b>Noise feedforward and subtraction</b>	Coordinating/Leading discussion	Gabriele Vajente	Y	
		4:00	4:10	0:10		Introduction and setting the stage	Gabriele Vajente	Y	
		4:55	5:15	0:20		Sensor correction in seismic and suspensions	Fabrice	Y	
		4:10	4:35	0:25		Feed forward of auxiliary degrees of freedom	Bas Swinkels		
		5:15	5:30	0:15		Wiener filtering, environmental noises	Keita Kawabe?		
		4:35	4:55	0:20		Feedforward at LLO and 40m, adaptive feed forward	Denis Martynov	Y	
		5:30	6:00	0:30		Data mining tools: hot to find channels that can be used for subtraction; how to tackle non stationary noises and couplings?	Gabriele Vajente	Y	
D	Wed	9:00	10:30	1:30	<b>Control approaches to optimize lock acquisition</b>	Coordinating/Leading discussion	TBD		
		9:00	9:05	0:05		Set the goals	Dennis Coyne/Fabrice Matichard	Y	
		9:05	9:15	0:10		Noise modeling for interferometer control	Chris Wipf		
		9:15	9:30	0:15		Mode hopping in low finesse cavities	Paul Faulda		
		9:30	9:50	0:20		Overview of lock acquisition problems and potential approaches	Sheila Dwyer		
		9:50	10:10	0:20		Simulation in support of controls design	TBD		
		10:10	10:30	0:20		Bayesian approach (Kalman filtering) to the locking problem for high finesse suspended optical cavities	Manuel Marchiò and Giancarlo Cella		
E	Wed	4:00	5:30	1:30	<b>Interferometer stability (Keeping the IFO Lock)</b>	Coordinating/Leading discussion	Sheila Dwyer	Y	
		4:00	4:05	0:05		Set the goals	Dennis Coyne/Fabrice Matichard		
		4:05	4:30	0:25		Overview of lock loss events/causes (LHO/LLO/Virgo)	TBD		
		4:30	4:50	0:20		Mitigation of disturbances caused by wind on the detectors	Krishna	Y	
		4:50	5:10	0:20		TCS controls approaches to prevent lock loss, or mitigate the effects of lock loss	Alastair Heptonstall		

