

# Spot positions & Optical gain vs. time

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Jenne Driggers

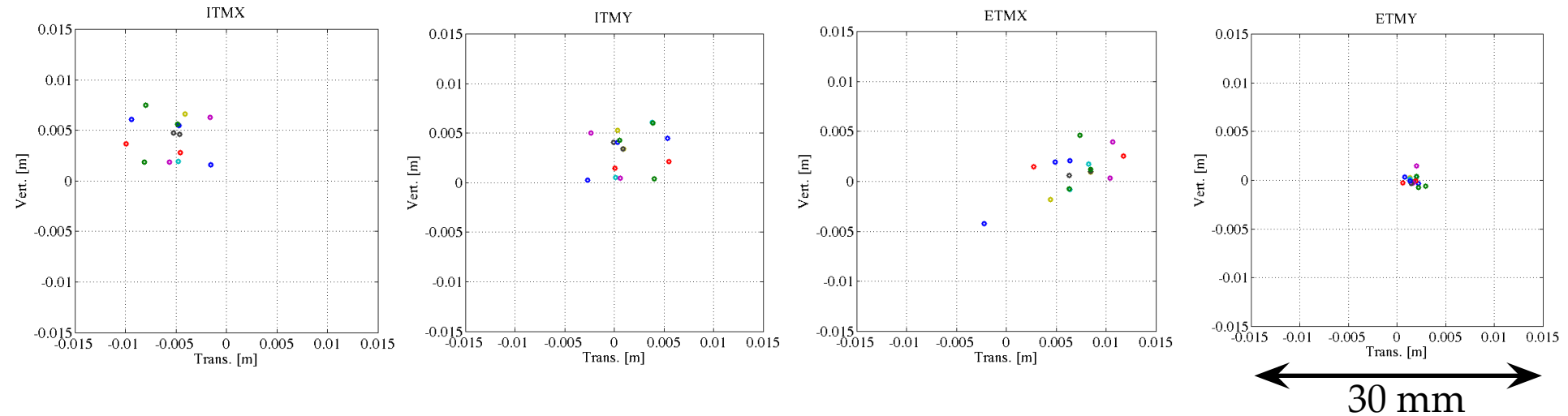
Commissioning Workshop  
10 November 2015

California Institute of Technology  
LIGO Hanford Observatory

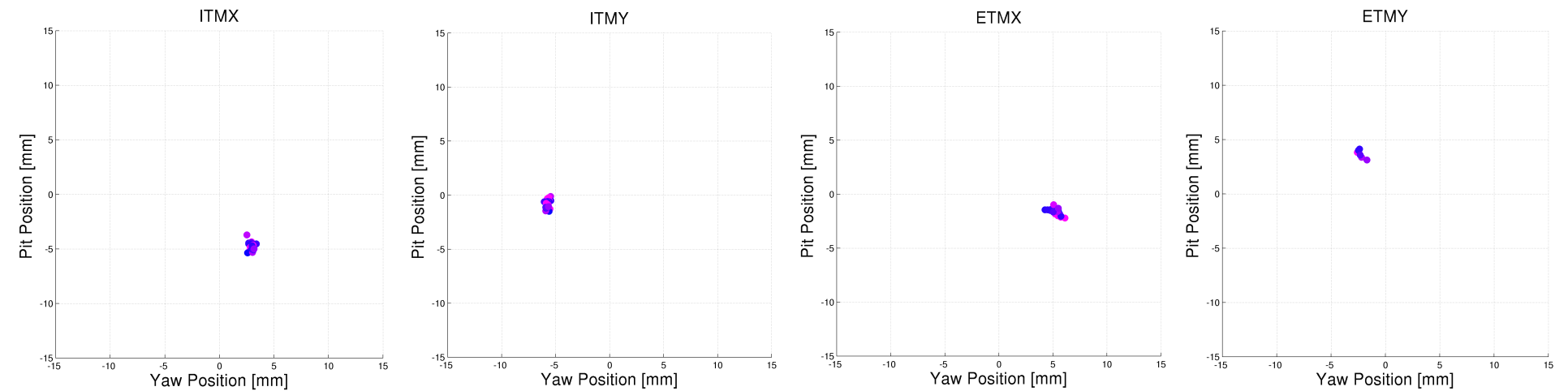
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All plots 30 mm x 30 mm

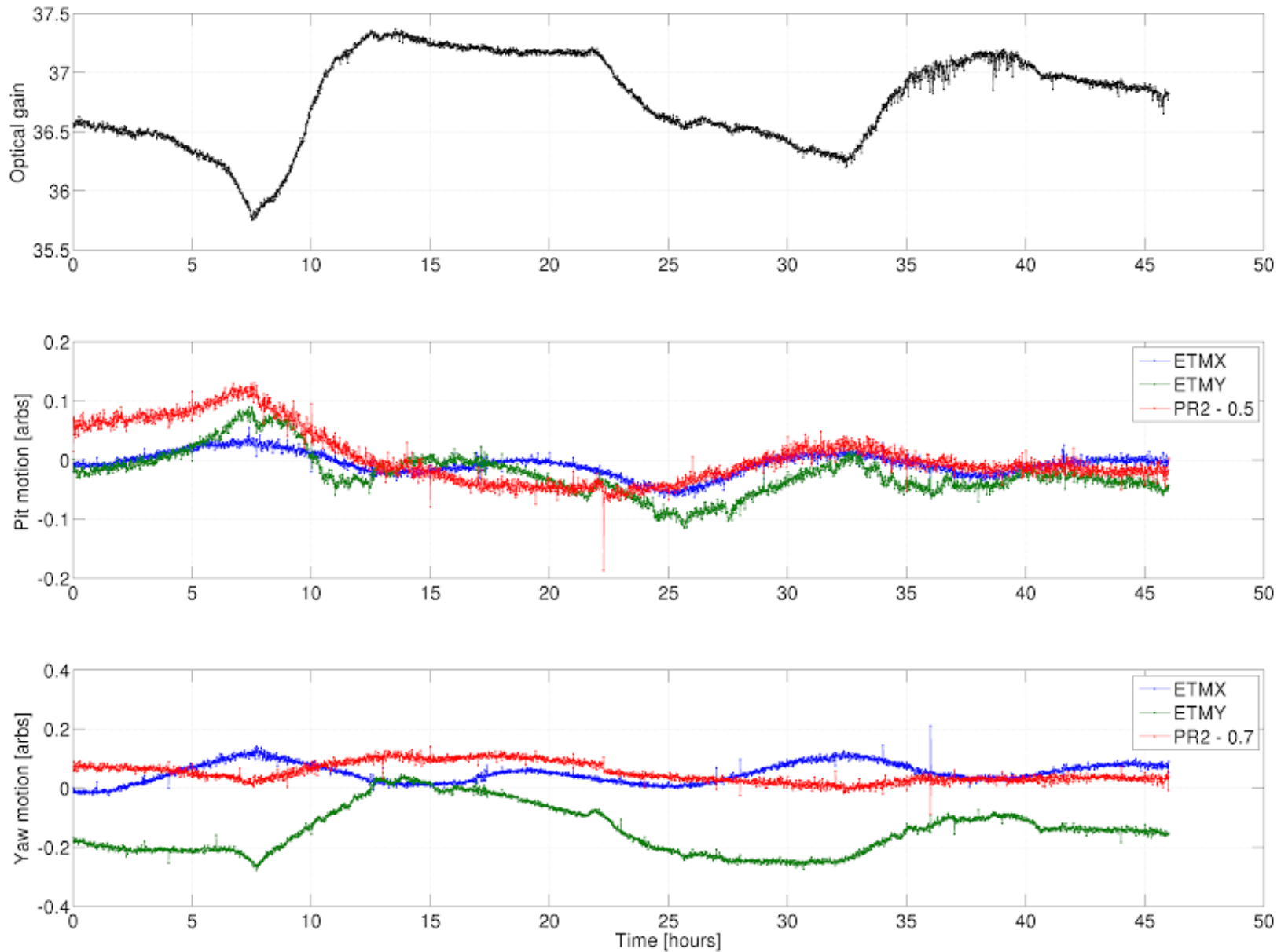
## LLO



## LHO



# Optical gain vs. spot position

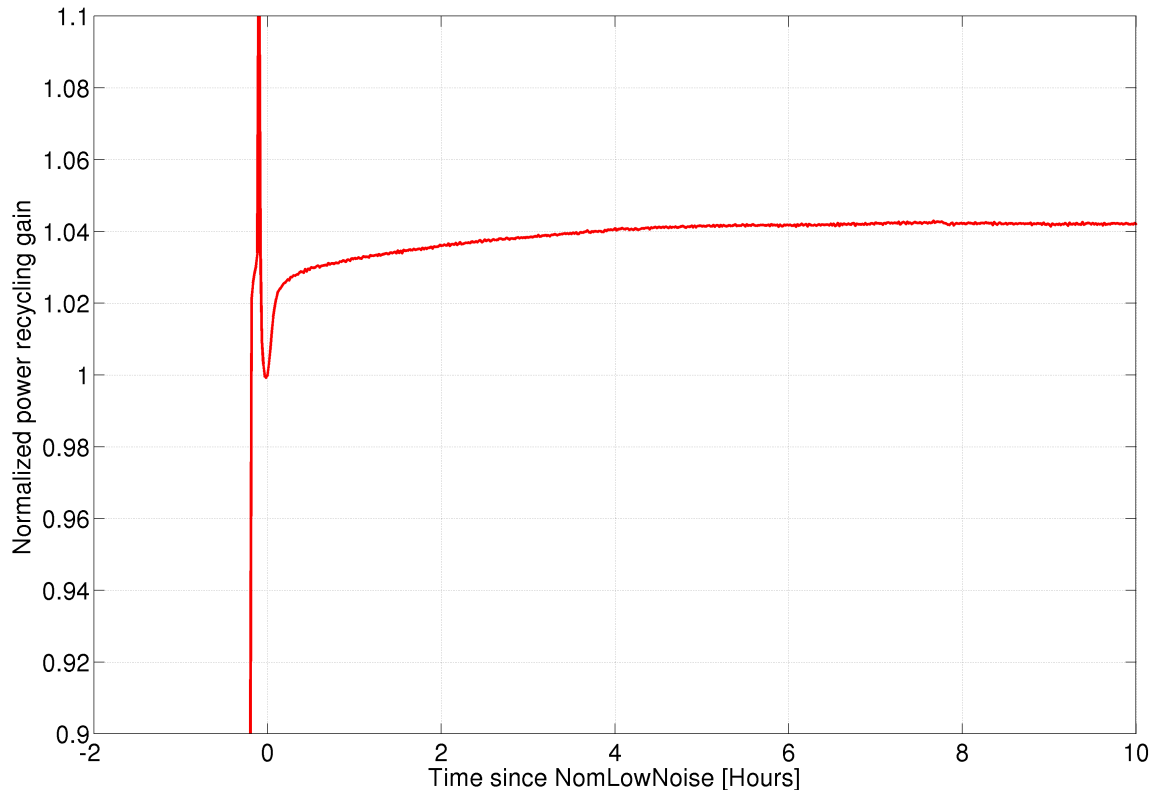


# Optical gain vs. time

Normalized to PRC gain at time of arrival at NomLowNoise



LHO, NLN start @ 2015-10-24 11:22:42 UTC



Almost all LHO locks look like this

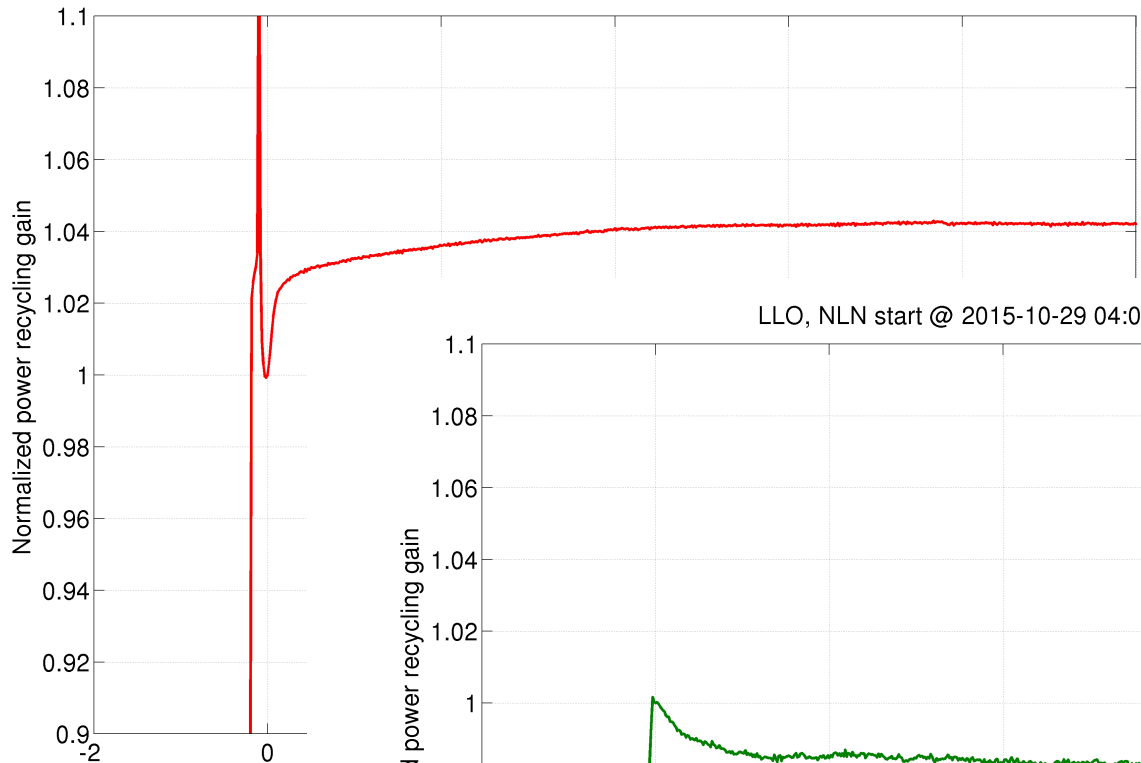
Spike up and back down is power-up, then DARM offset to keep OMC PD @ 20 mA

# Optical gain vs. time

Normalized to PRC gain at time of arrival at NomLowNoise



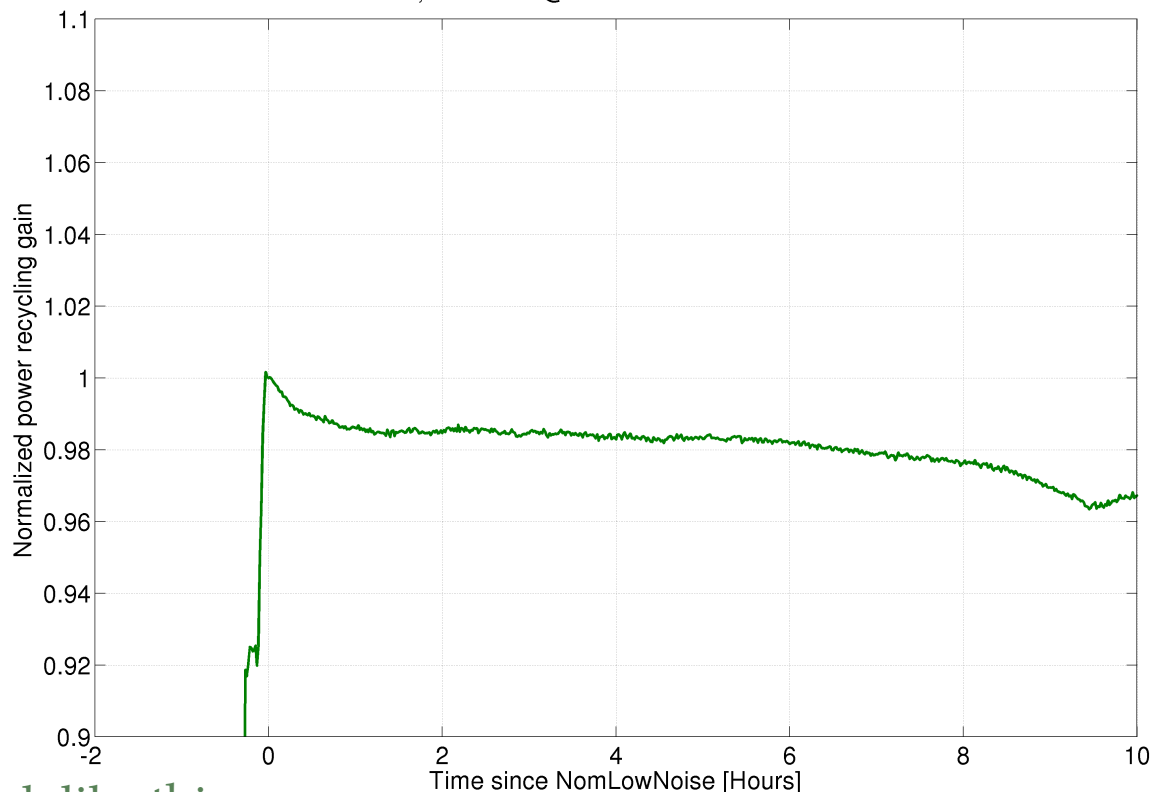
LHO, NLN start @ 2015-10-24 11:22:42 UTC



Almost all LHO locks look like this

Spike up and back down is power-up, then DARM offset to keep OMC PD @ 20 mA

LLO, NLN start @ 2015-10-29 04:04:42 UTC



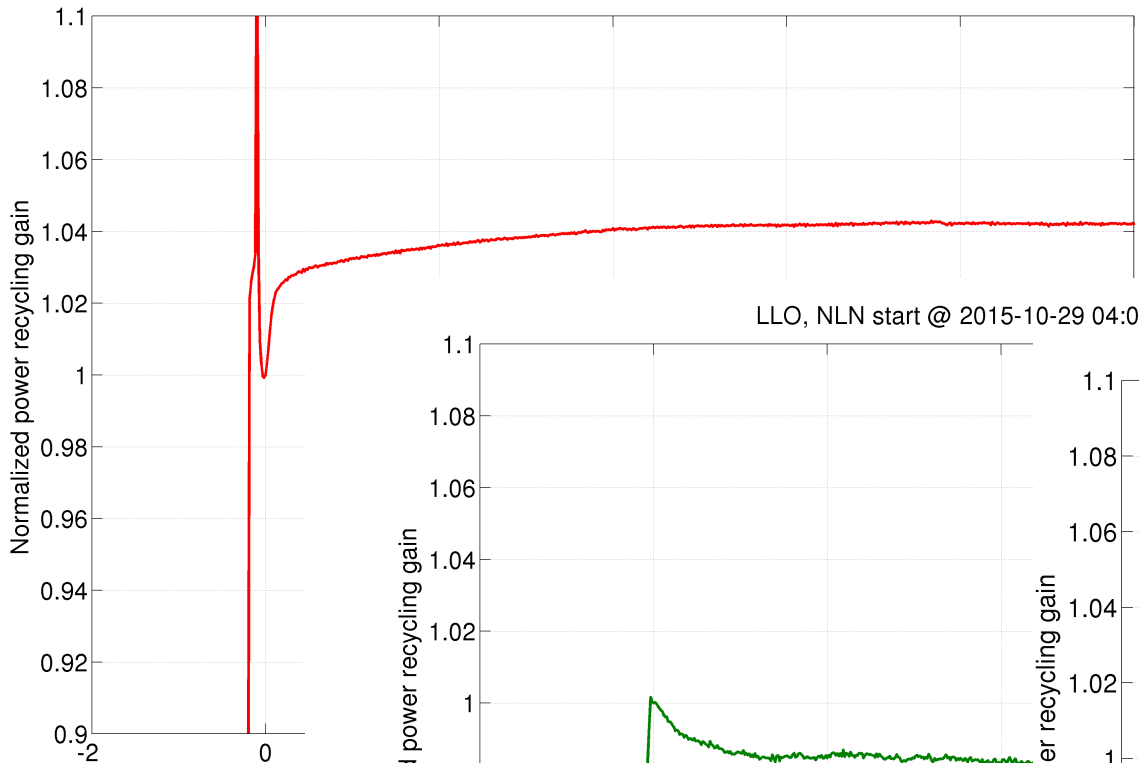
Most LLO locks look like this

# Optical gain vs. time

Normalized to PRC gain at time of arrival at NomLowNoise



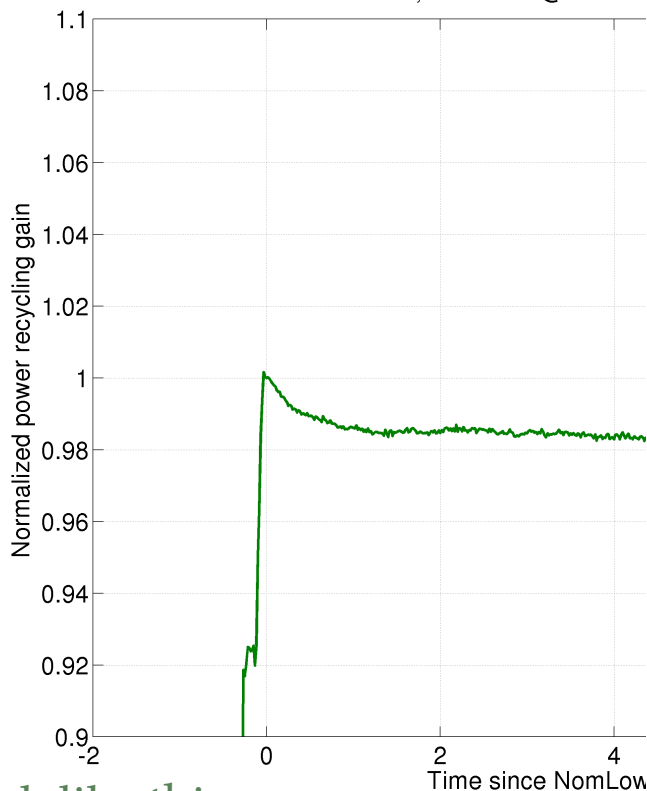
LHO, NLN start @ 2015-10-24 11:22:42 UTC



Almost all LHO locks look like this

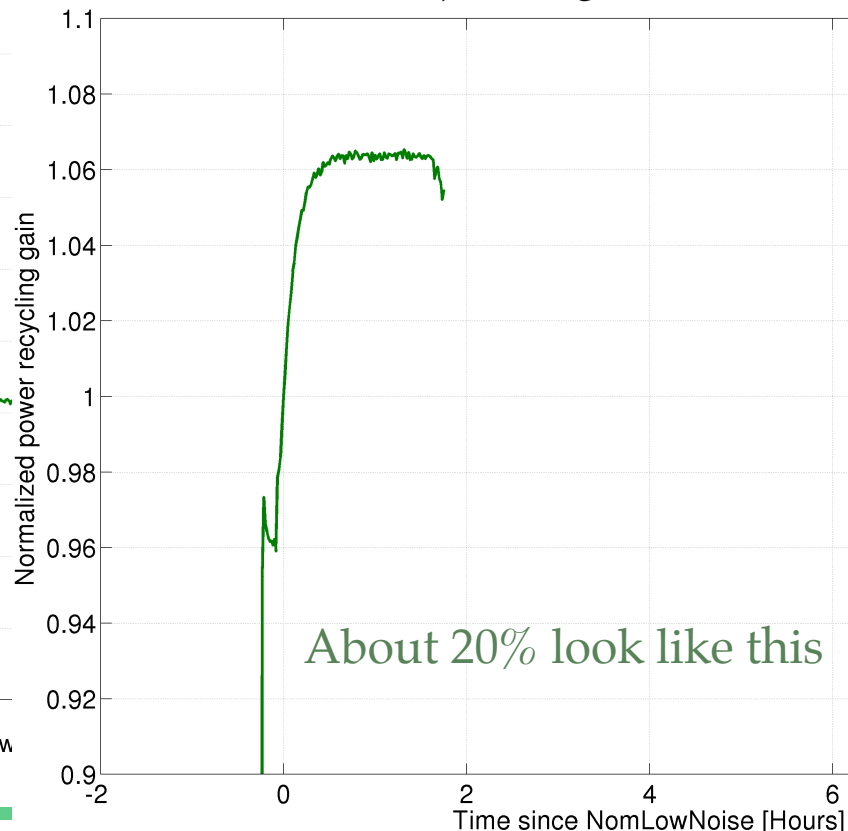
Spike up and back down is power-up, then DARM offset to keep OMC PD @ 20 mA

LLO, NLN start @ 2015-10-29 04:04:42 UTC



Most LLO locks look like this

LLO, NLN start @ 2015-09-30 15:51:02



About 20% look like this

# Longest locks

