

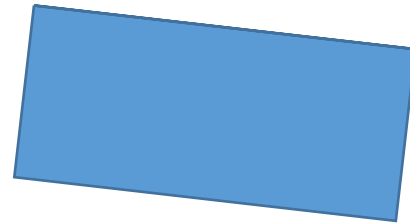
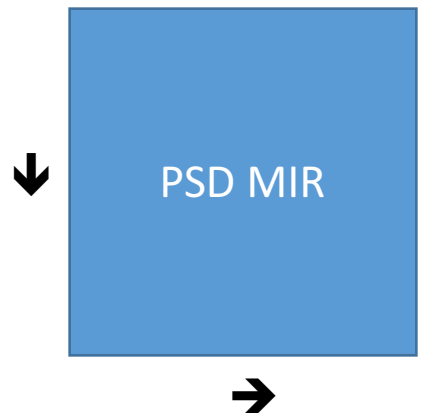
VIR-0370A-16

E. Majorana

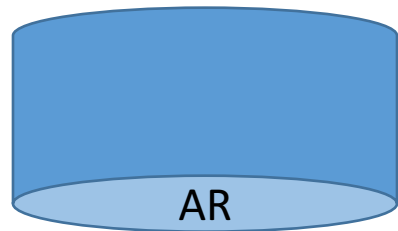
MONOLITHIC suspension breaking sequence
revised !!!!!

- Analysis of PSD signals at the level of marionette and mirror
- Considering the orientations of OpLevs
- See also VIR-0128A-16

The mirror LC mirror is on the HR side

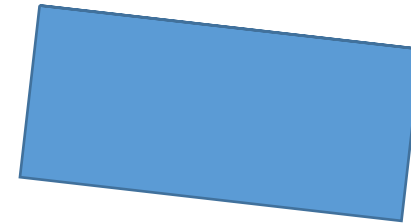
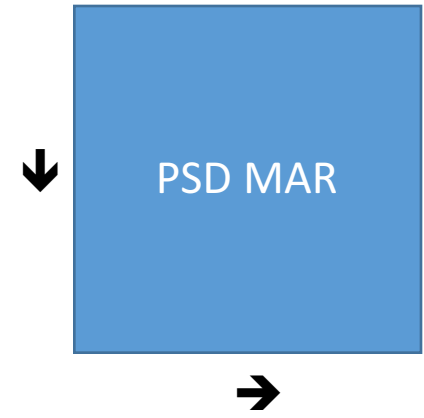


$\theta_y > 0$

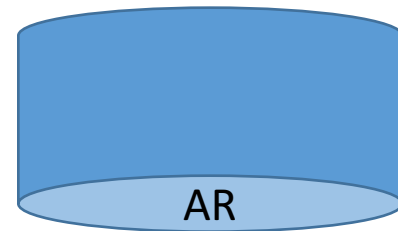


$\theta_x > 0$

The marionette LC mirror is on the opposite side

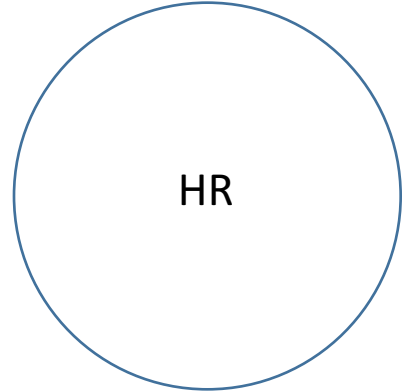
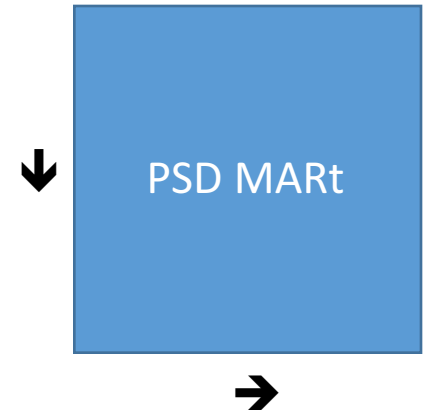


$\theta_y > 0$

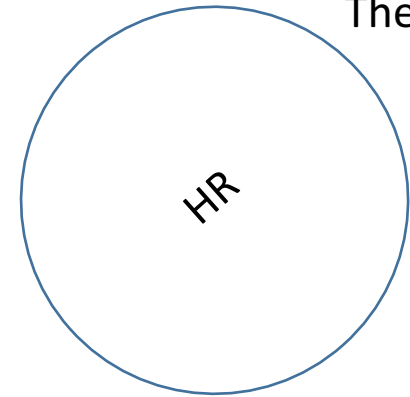


$\theta_x < 0$

The marionette transversal LC mirror is such that



$\theta_z > 0$

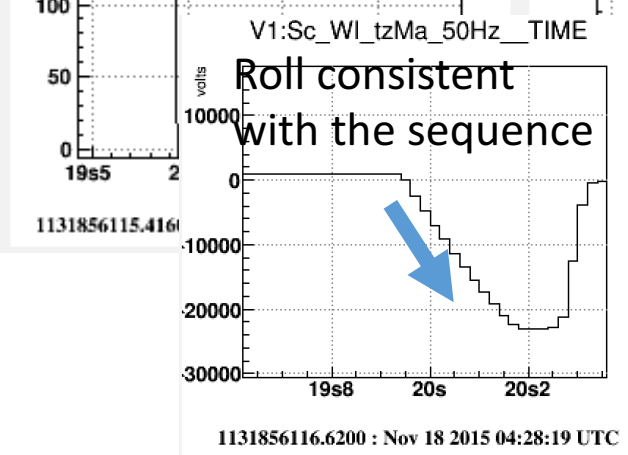
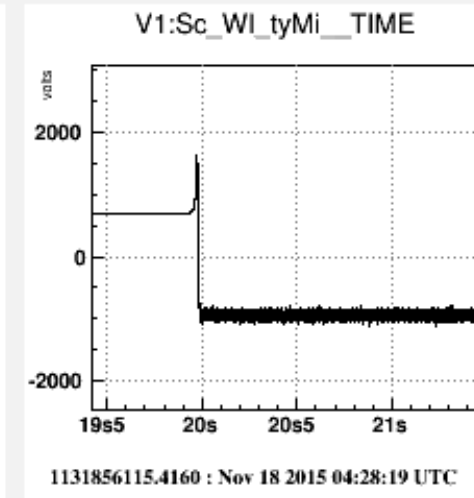
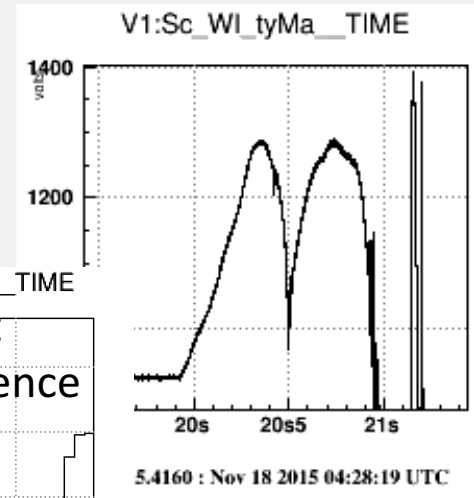
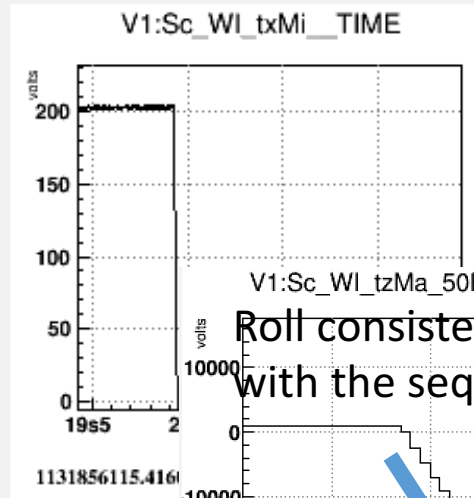
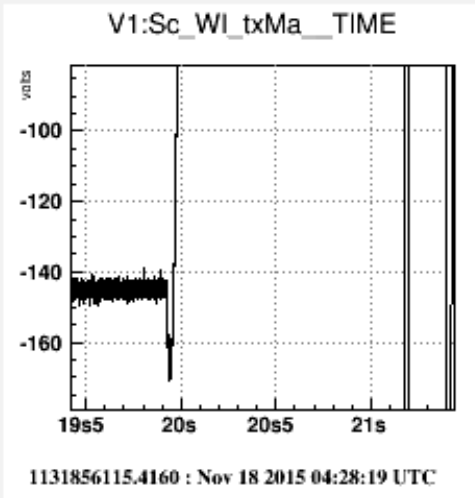
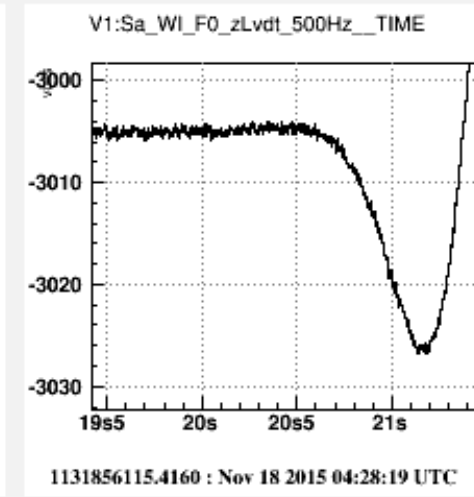
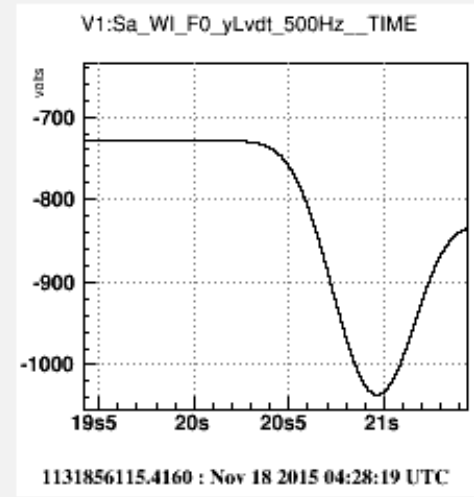
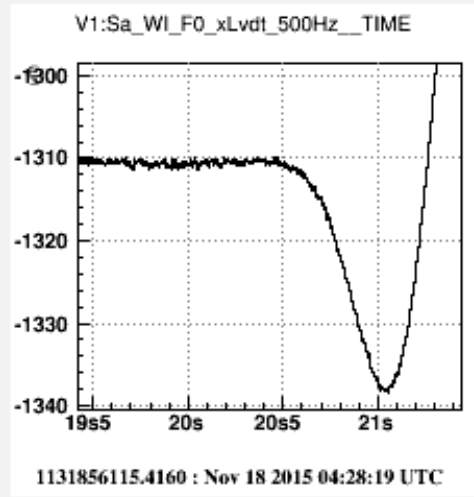
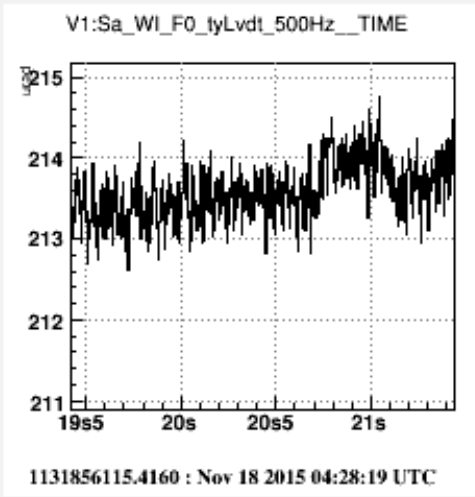


WI-1: suspension fiber no. 3

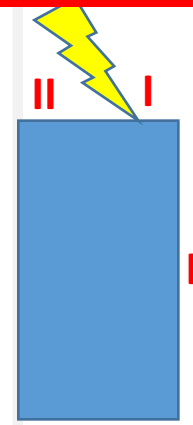
dataDisplay v9r12p19 : started by virgorun on Nov 24 2015 08:41:31 UTC

4 3
1 2

HR



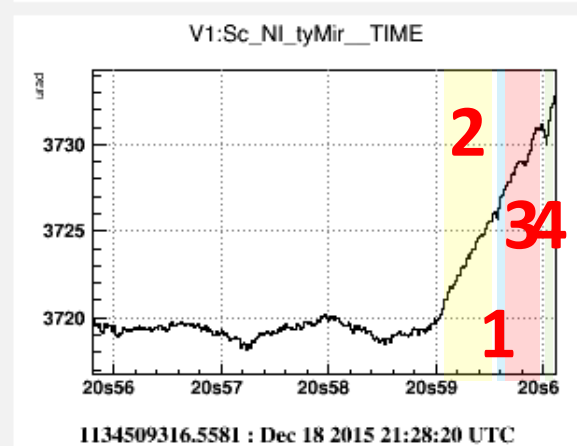
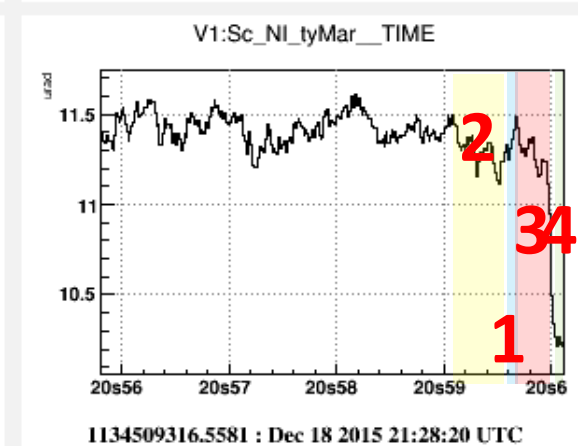
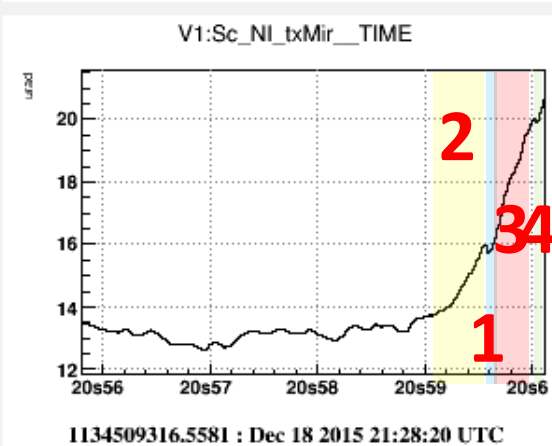
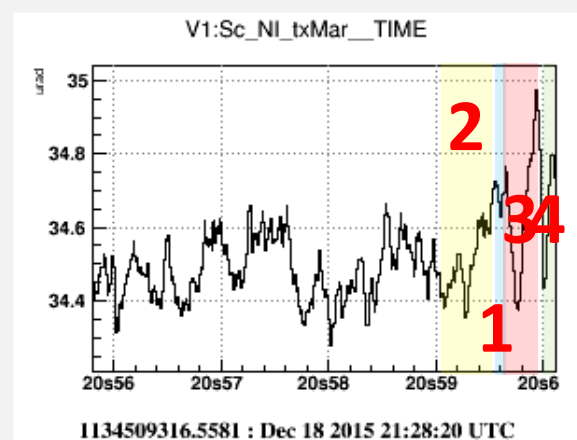
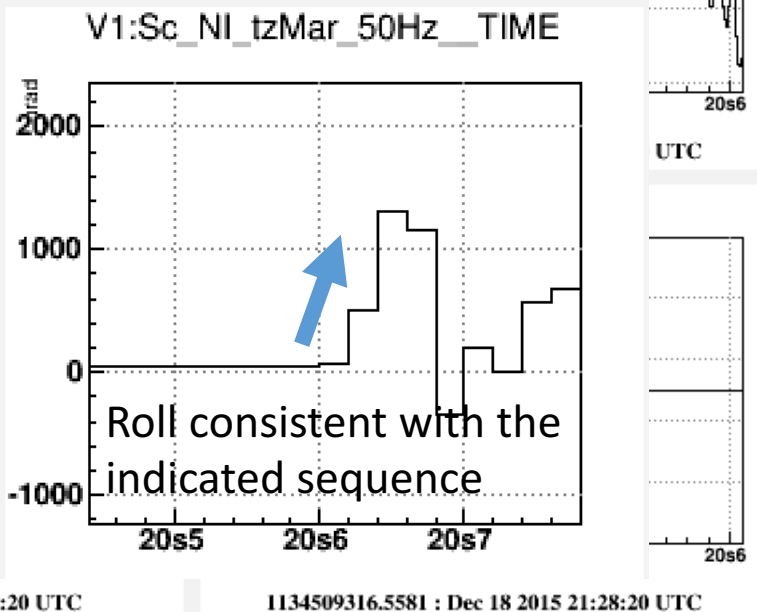
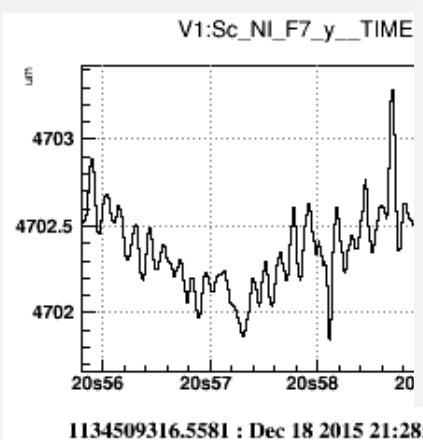
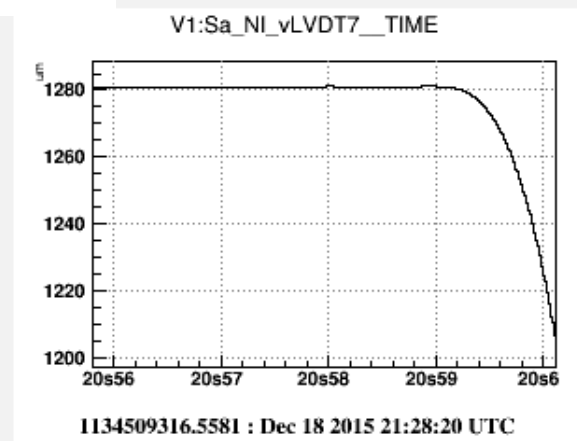
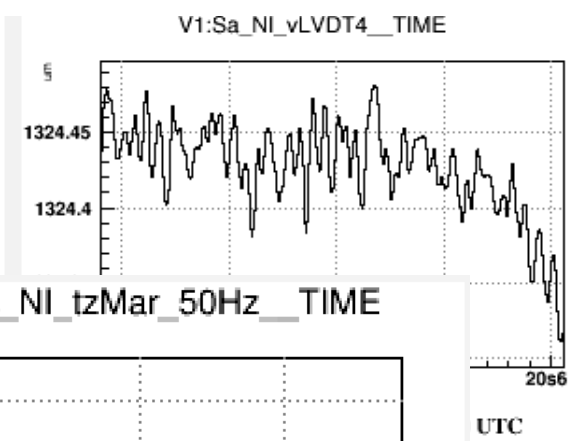
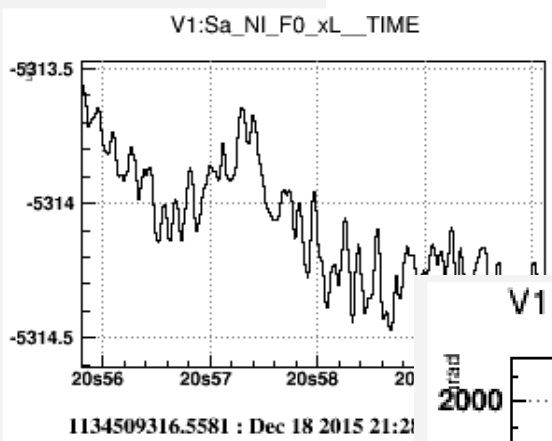
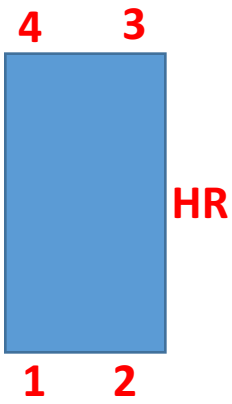
Sequence:
3-4-...-...



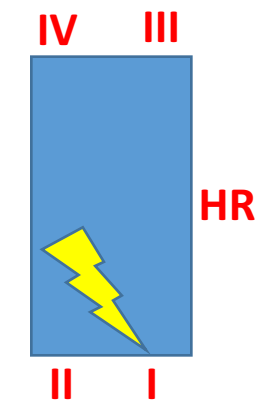
10kHz data should be used to infer III and IV

NI-1: suspension fiber no. 2

16 UTC

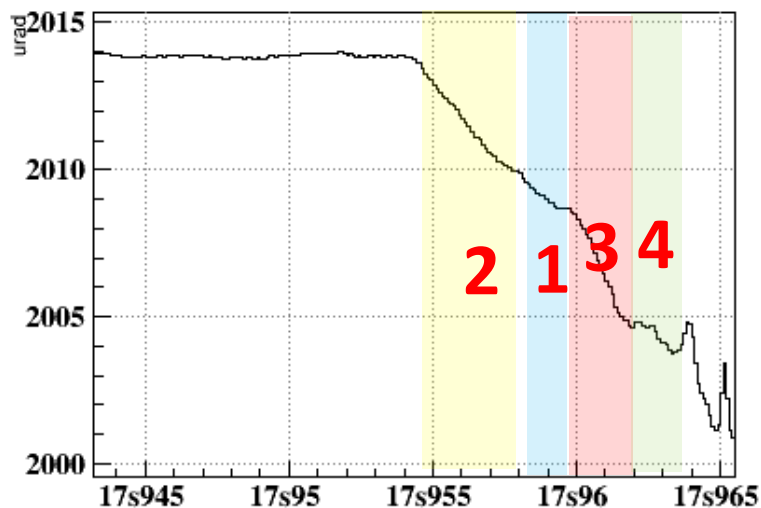


Sequence:
2-1-3-4



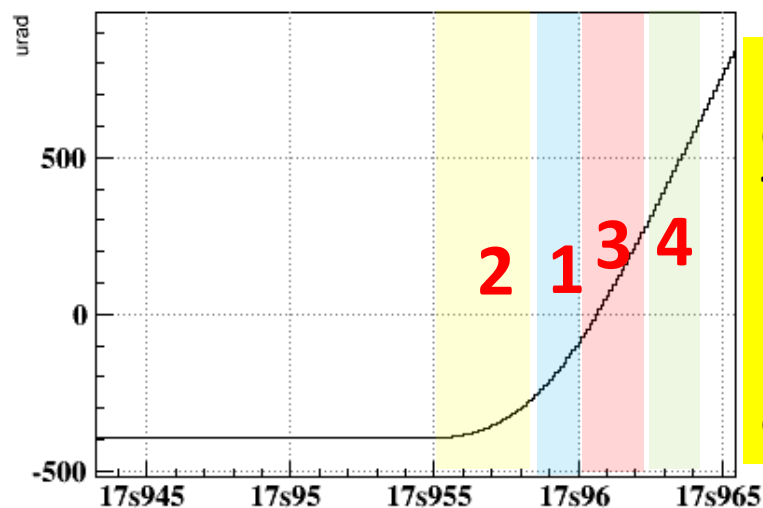
NI-2: suspension fiber no. 2 TC

V1:Sc_NI_txMar__TIME



1140856294.9432 : Mar 1 2016 08:31:17 UTC

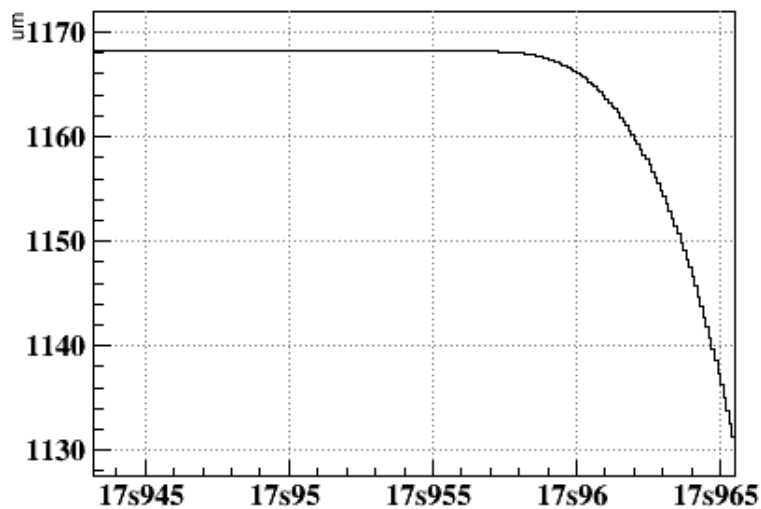
V1:Sc_NI_tzMar__TIME



1140856294.9432 : Mar 1 2016 08:31:17 UTC

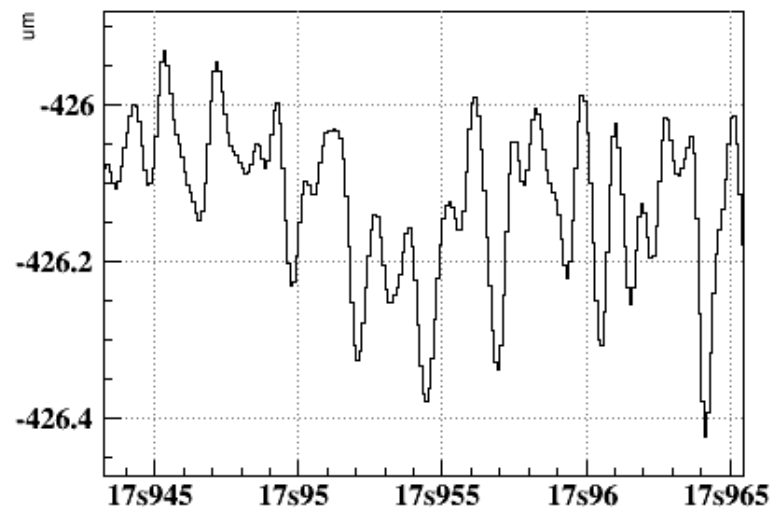
No signal @ mirror due to in-vacuum Vdrifts, Ty Mar non usable (too small recoil), → 3 or 2 as first, but Tz and the slope of Tx mario help

V1:Sa_NI_vLVDT7__TIME



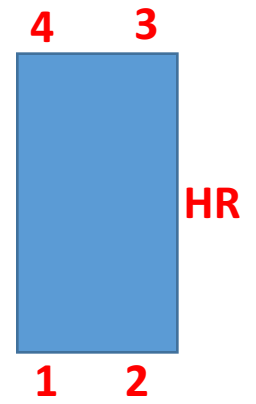
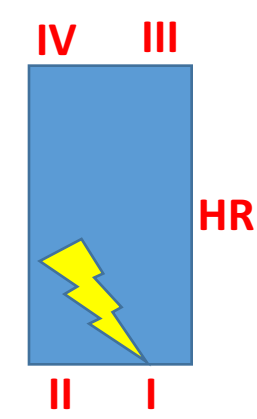
1140856294.9432 : Mar 1 2016 08:31:17 UTC

V1:Sc_NI_F7_y__TIME



1140856294.9432 : Mar 1 2016 08:31:17 UTC

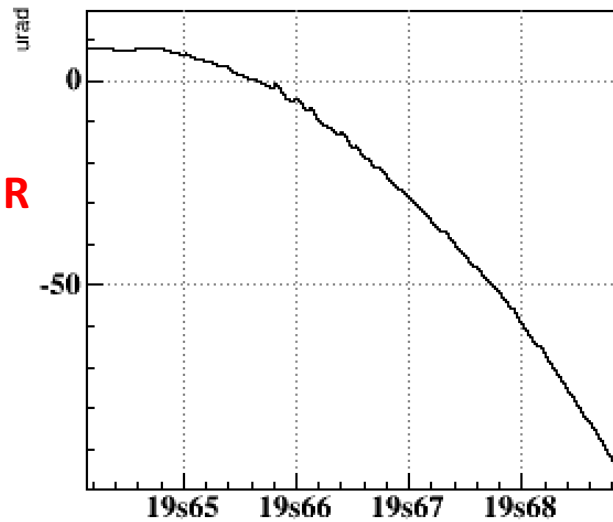
Sequence:
2-1-3-4



WI-2: suspension fiber no. 3

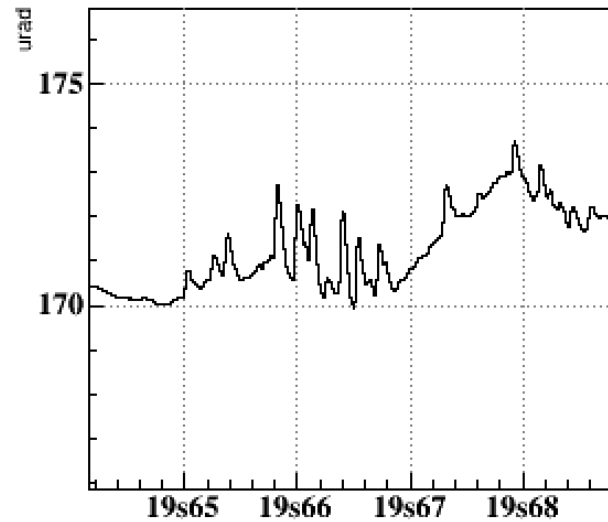
JTC

V1:Sc_WI_MAR_TX__TIME



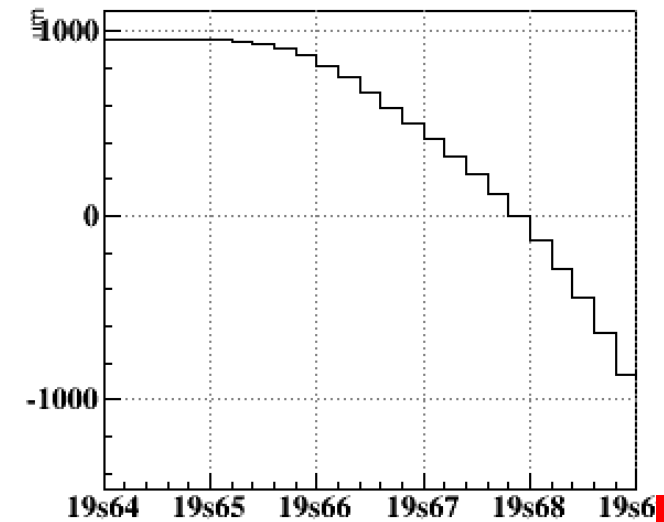
1150890756.6414 : Jun 25 2016 11:52:19 UTC

V1:Sc_WI_MAR_IY__TIME



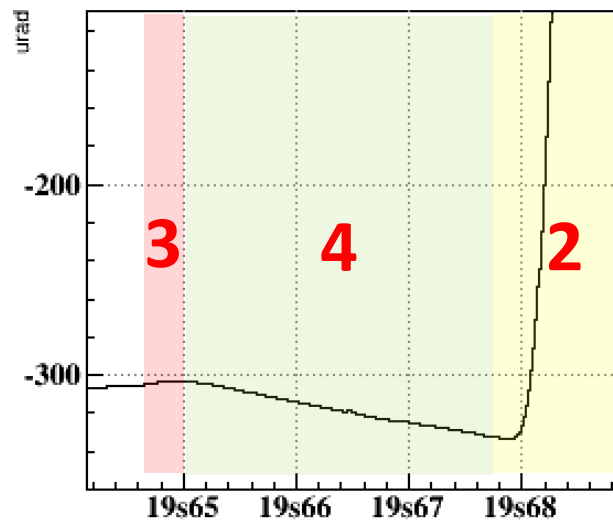
1150890756.6414 : Jun 25 2016 11:52:19 UTC

V1:Sa_WI_F7_LVDT_V_500Hz__TIME



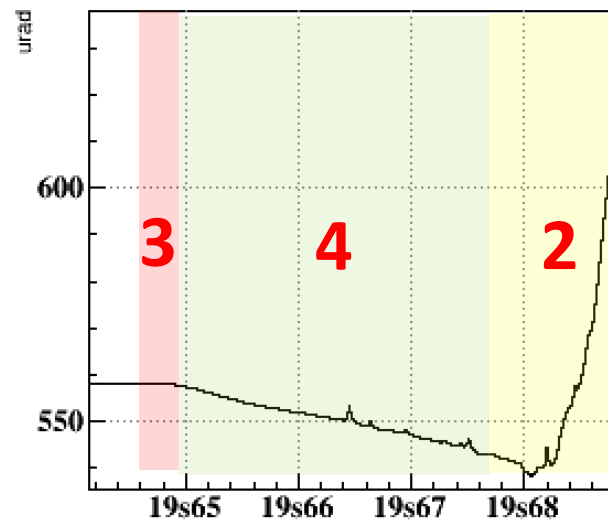
1150890756.6400 : Jun 25 2016 11:52:19 UTC

V1:Sc_WI_MIR_TX__TIME



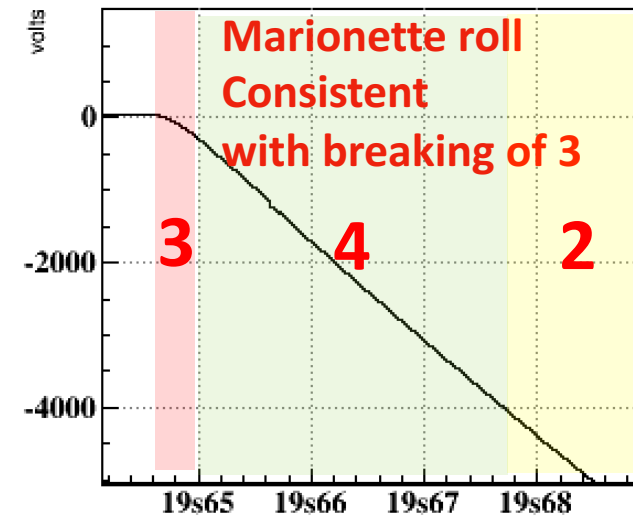
1150890756.6414 : Jun 25 2016 11:52:19 UTC

V1:Sc_WI_MIR_TY__TIME



1150890756.6414 : Jun 25 2016 11:52:19 UTC

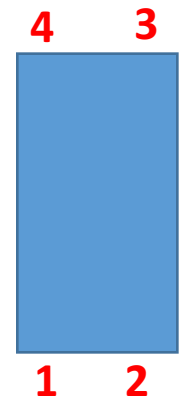
V1:Sc_WI_MAR_TZ__TIME



1150890756.6414 : Jun 25 2016 11:52:19 UTC

Sequence:

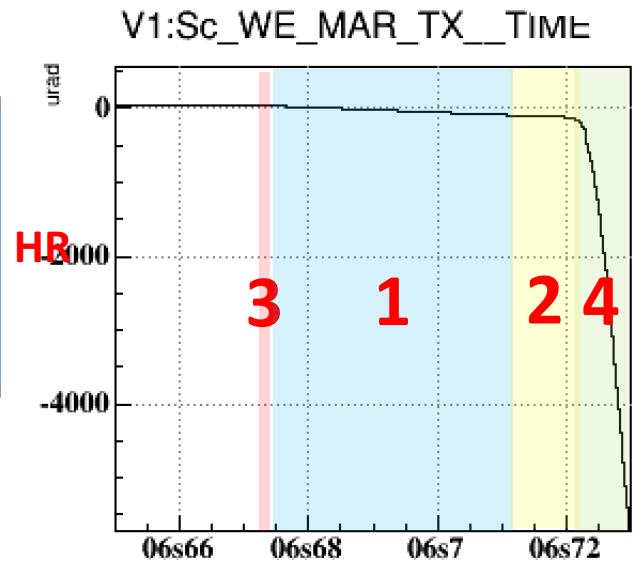
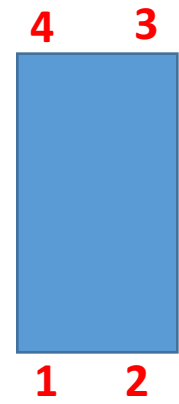
3-4-2-1



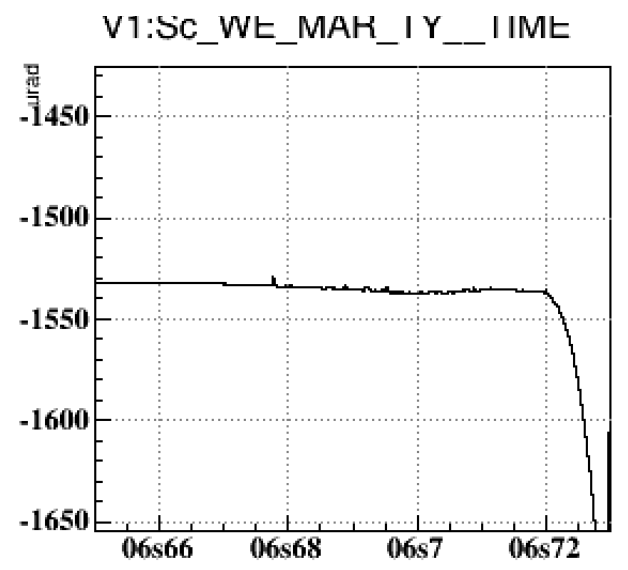
HR

WE: suspension fiber no. 3

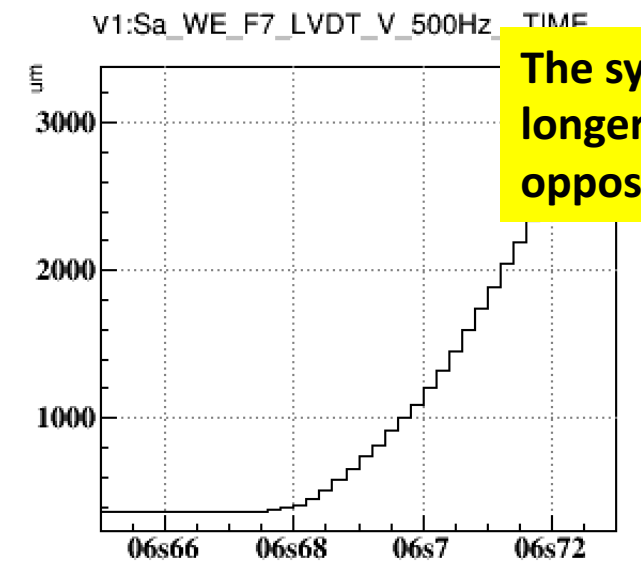
TC



1151182523.6500 : Jun 28 2016 20:55:06 UTC

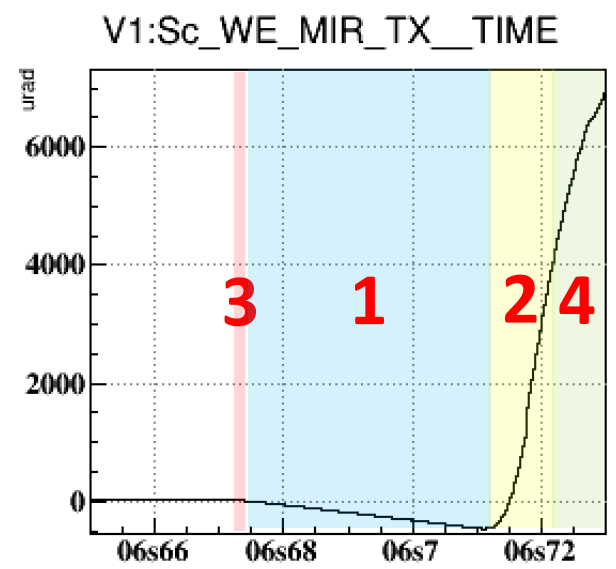


1151182523.6500 : Jun 28 2016 20:55:06 UTC

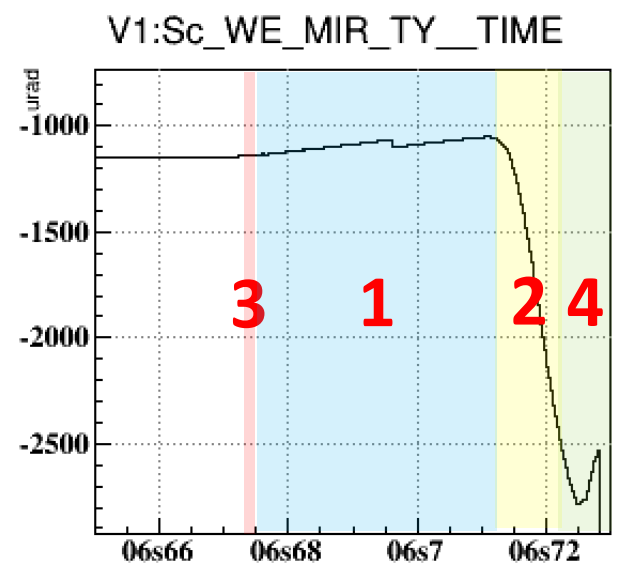


1151182523.6500 : Jun 28 2016 20:55:06 UTC

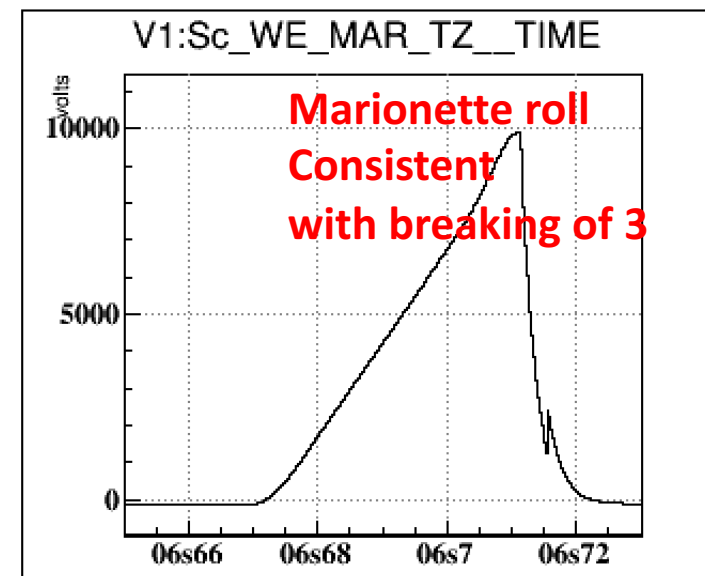
The system stands longer with two opposite fibers (2-4)



1151182523.6500 : Jun 28 2016 20:55:06 UTC



1151182523.6500 : Jun 28 2016 20:55:06 UTC



1151182523.6500 : Jun 28 2016 20:55:06 UTC

Marionette roll
Consistent
with breaking of 3

Sequence:
3-1-2-4

