



Thursday 22/4/2010

Morning:

- Injecting again beam 1 and beam 2
- Lost B2 at injection: It looks like losses at the TCDI's seen at the Q7
- Switch to inject and dump for beam 2 for investigation

TI 8 Trajectory: seems that we may have accumulated some drift over the past weeks which could mean the beam axis is now closer to the TCDI jaws at the downstream end, so we are probably much more sensitive now to small changes in trajectory or beam size/tails.

To be done: revisit the TL trajectories and steering in the near future, to try to avoid these problems of losses on TCDIs.



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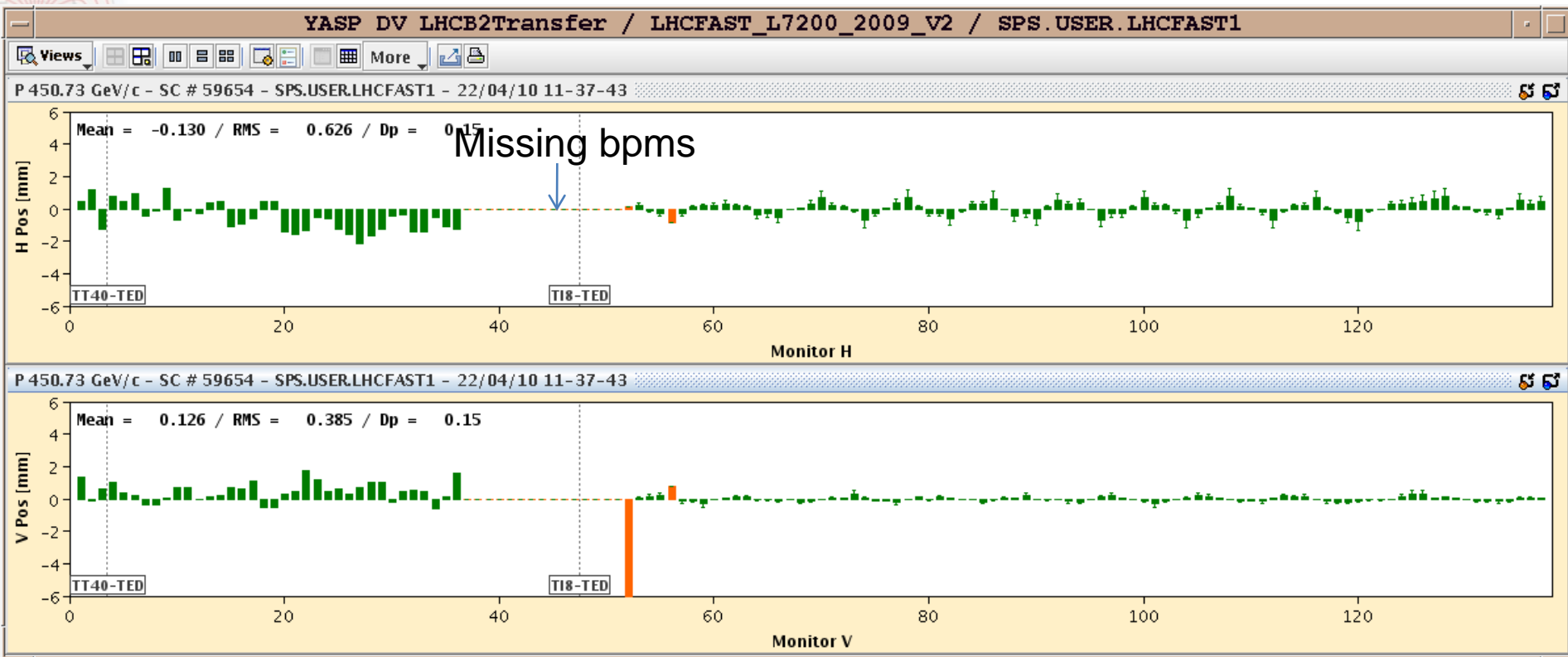
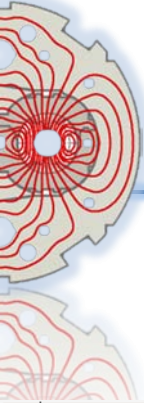
Collimator checks: opened TCDIH.87904

→ Losses a factor 10 lower with TCDIH.87904 opened

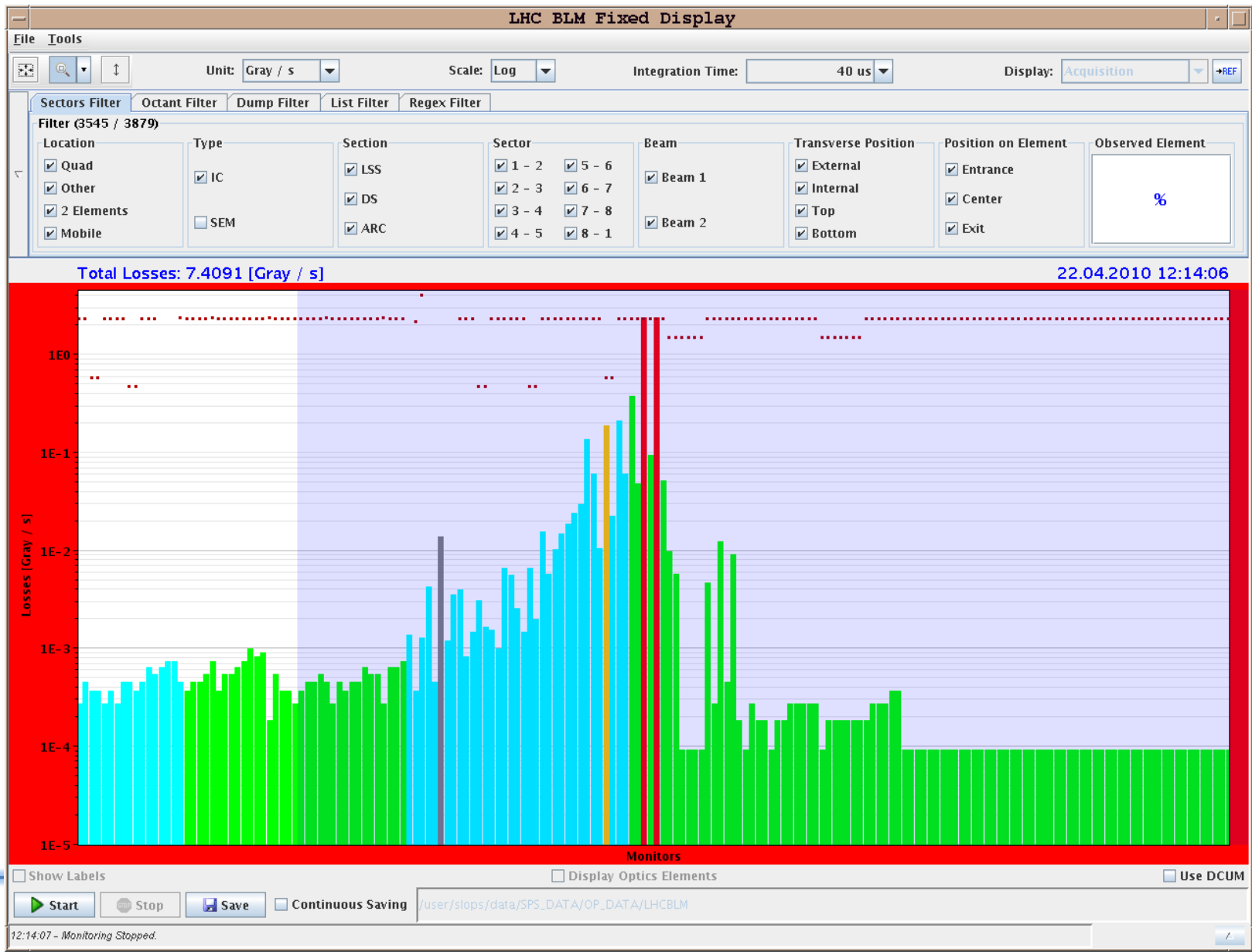
TCDIH.87904 set now to ± 5 mm around the beam-based centre: no more losses close to threshold now

Left TCDIH.87904 at new setting - still factor x10 lower. We can fill like this but this collimator and TL steering needs to be revisited for several hours before any higher intensity checks.

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LHC Collimator Control Application - LHC beam commissioning (Device: TCDIH.87904/TCDI.TI8.B2.4.H)

RBA: Ihcop

File Settings Reset More displays Help

Jaw corners Positions/Angles Increment

Set absolute jaw positions and angles

Left POSIT [mm]:
Right POSIT [mm]:
Left ANGLE [mrad]:
Right ANGLE [mrad]:

Initialization...

Left Jaw UP-IN UP-OUT DW-IN DW-OUT
Right jaw UP-IN UP-OUT DW-IN DW-OUT
Anti COLL UP DOWN

Positions readout from the low-level

LVDT's	Left UP	20.015	Gap UP	39.818
Jaw edges	Left DW	20.054	Gap DW	40.166
	Right UP	-20.002	Centre UP	0.007
	Right DW	-20.057	Centre DW	-0.002

Display jaw: Left Jaw (dashed) Right jaw (solid)

Positions: Set LVDT Warn Lim Res Motor

BLM: BLM 1 BLM 2 BLM 3 BLM 4 LogY

Beam loss data [22/04/10 12:15:06]

Beam loss signal [gray]

12:12:40 12:13:00 12:13:20 12:13:40 12:14:00 12:14:20 12:14:40 12:15:00

Jaw positions [22/04/10 12:15:09]

Jaw positions [mm]

time (hh:mm:ss)

12:12:40 12:13:00 12:13:20 12:13:40 12:14:00 12:14:20 12:14:40 12:15:00

Console

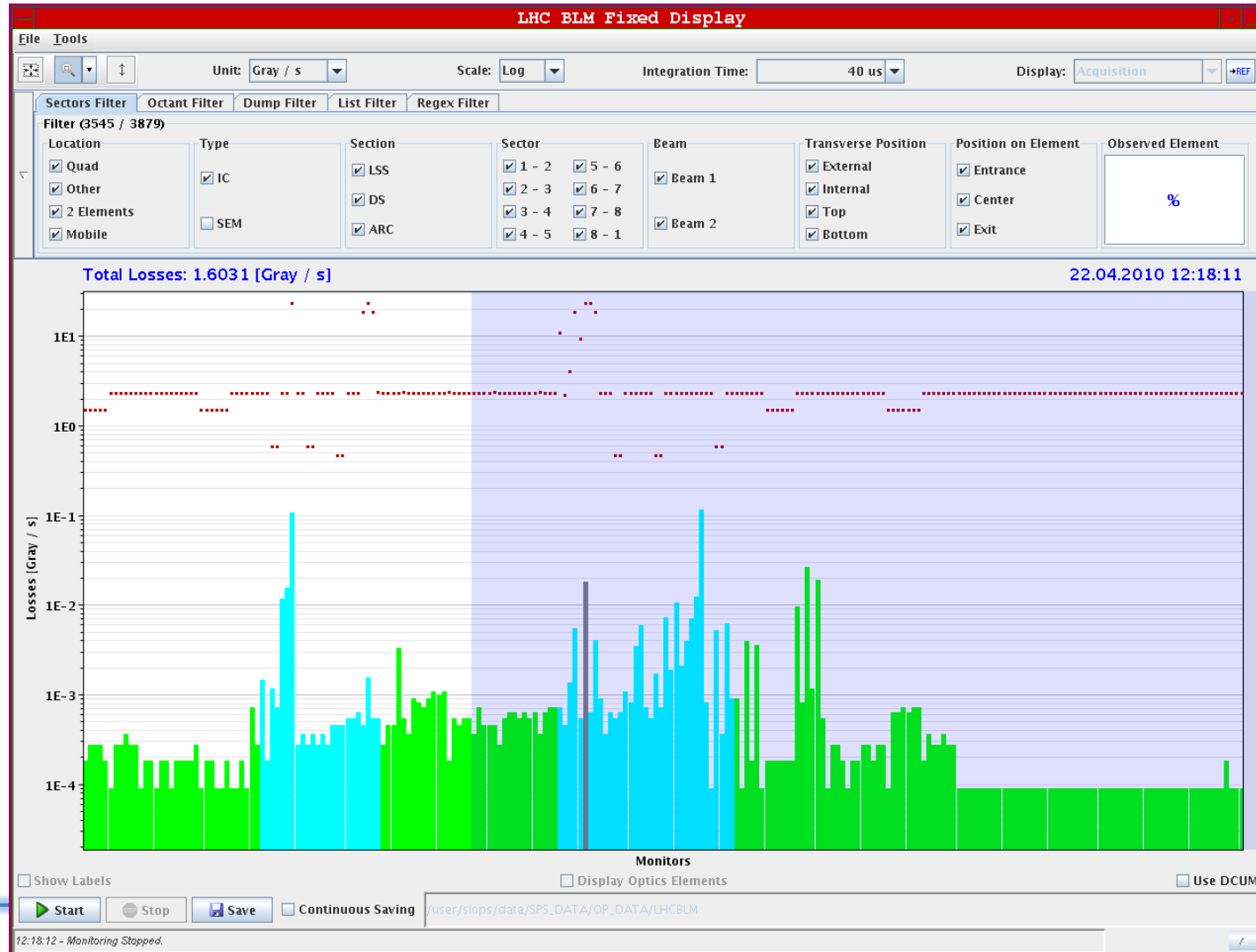
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--> TI8.BLMI.88004  
--> TI8.BLMI.86123
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11:52:07 - Ready.

Moving out collimator TCDIH.87904 to +/- 20 mm

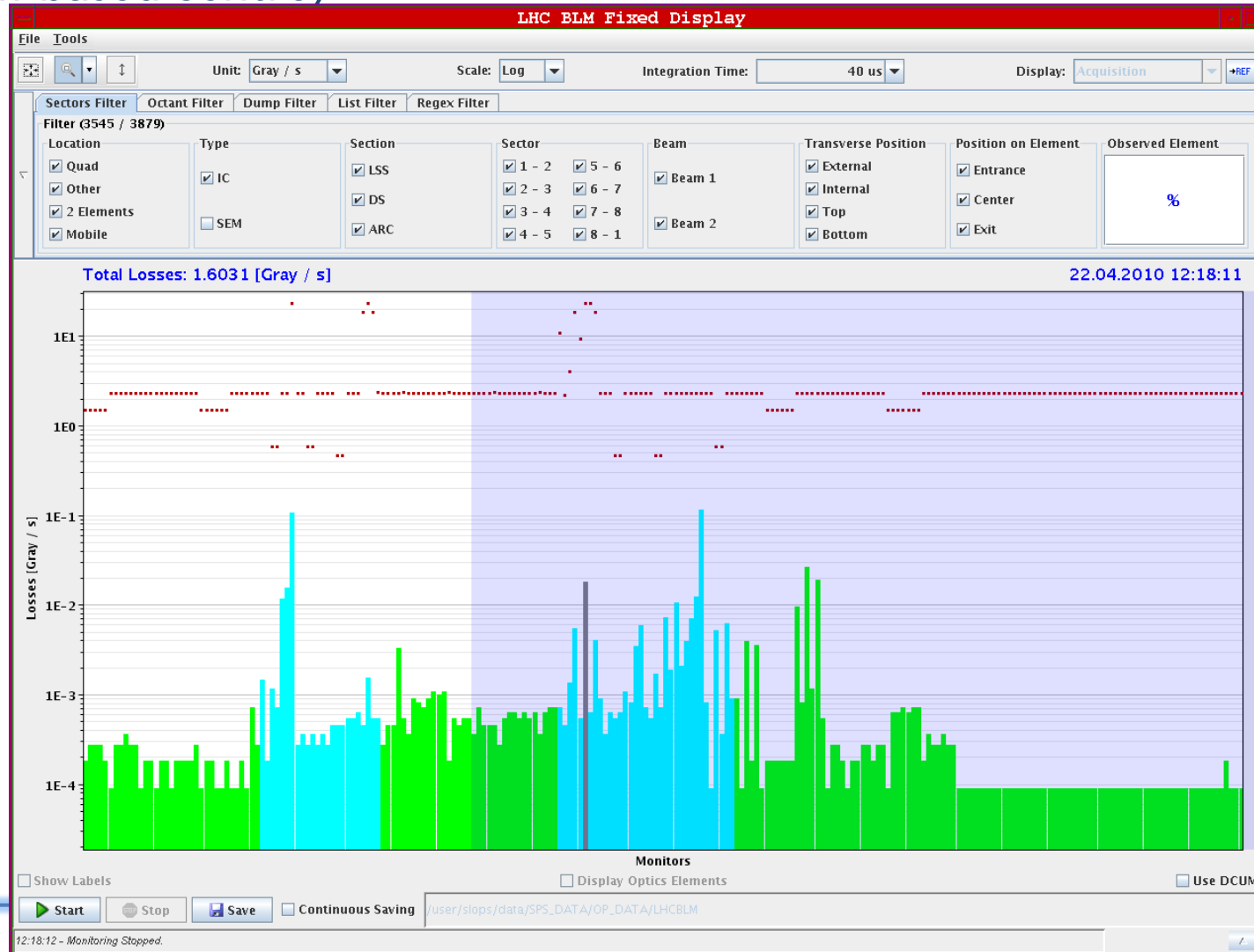
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Losses a factor 10 lower with TCDIH.87904 opened



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Losses with TCDIH.87904 at new settings (± 5 mm around the beam-based centre)





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From noon - afternoon:

- Injecting - Ramping - All fine
 - Squeezing : Beams almost completely lost: tunes crossed resonances at the end as a result of incorporation of the last tune trims of yesterday, which were done for loss maps and not rolled back
 - Squeeze done without any prb: cut the squeeze stops by a factor 2
 - Got a loss maps
 - With what was left in the machine: De-bunched - Dumped beam with operator switch - Analysis of PM data on-going to check losses on the dump protection elements
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Thursday 22/4/2010

Now: ramping-down and preparing for injection for transverse damper commissioning

18:00 - 22:00 Transverse Damper commissioning

22:00 - 09:00 Qualification of 3.5 TeV squeezed optics for protection. $1e10$ /beam. 2 squeeze needed.
