



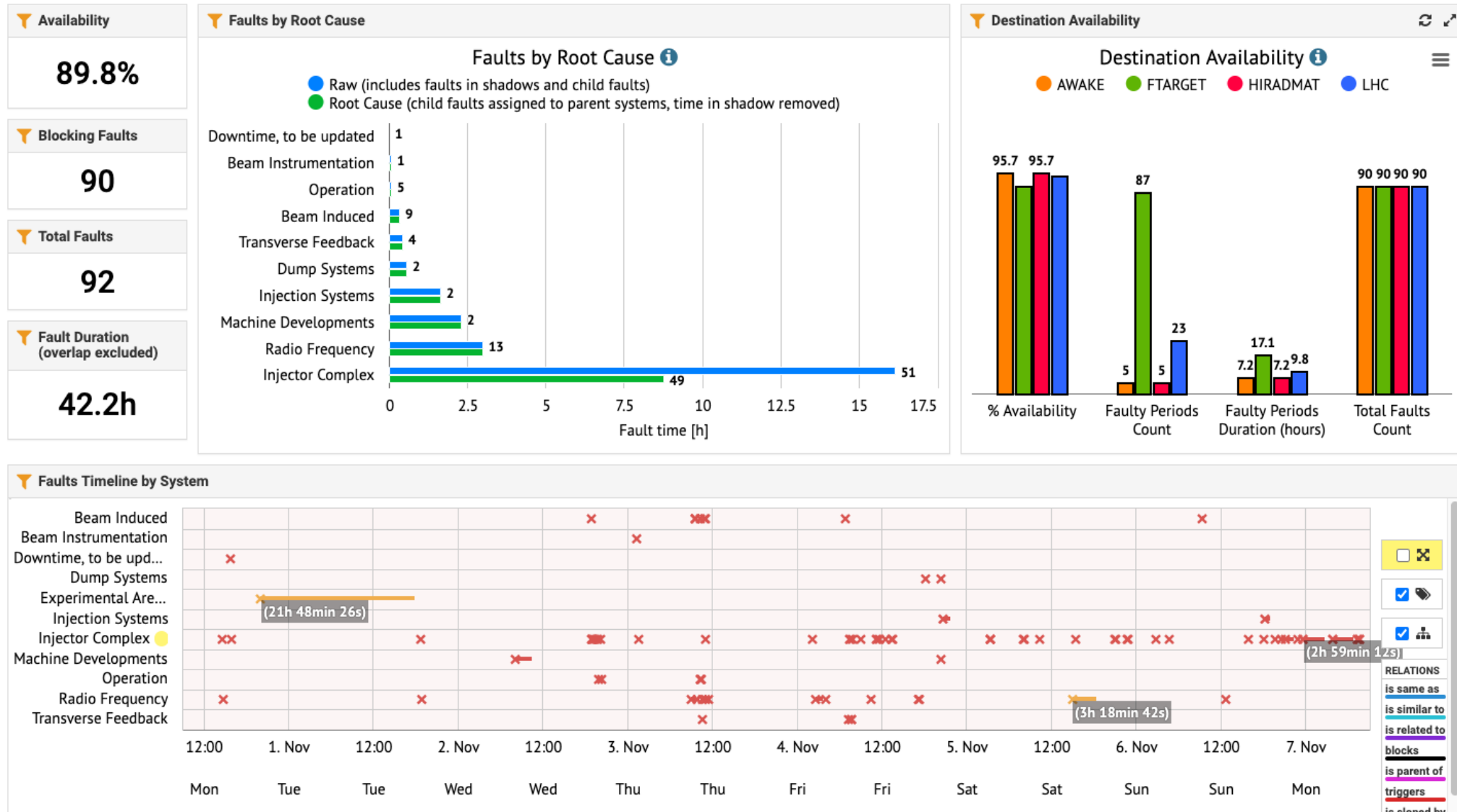
FOM

SPS machine report – week 44

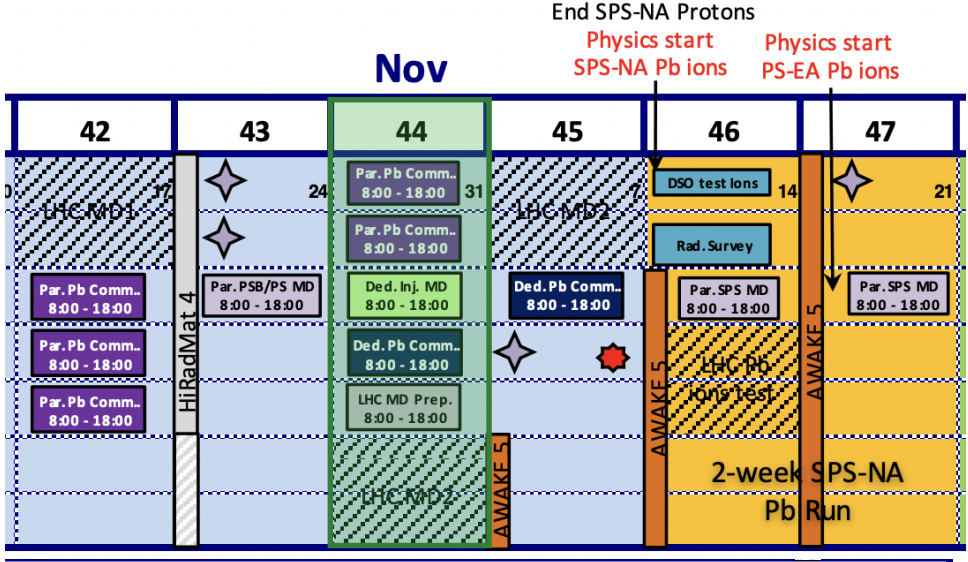
K. Li on behalf of the SPS Operations and Supervisors Teams

08. November 2022

Faults overview

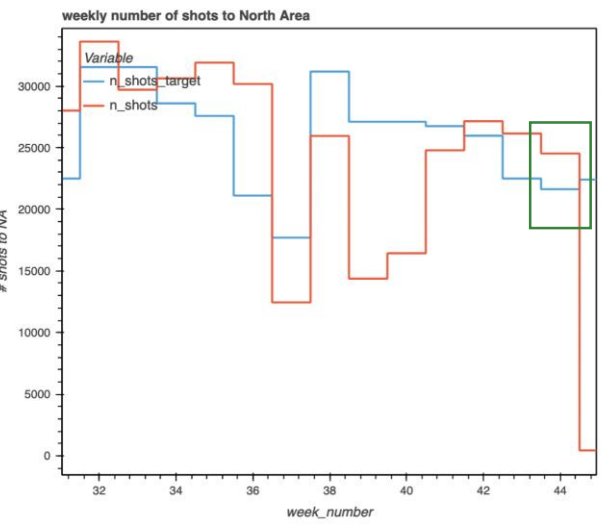
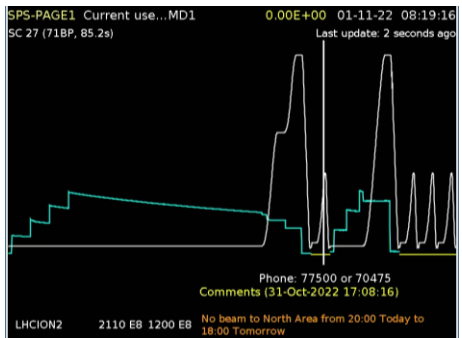


Week 43 / 44 Review

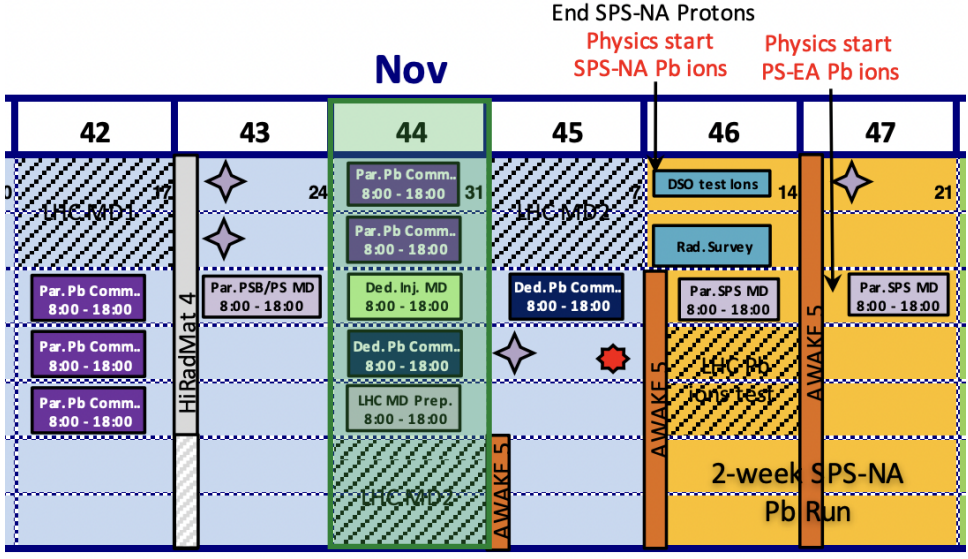


Programme

- Physics:
 - Overall good delivery of beams beside very dense program otherwise – physics delivered on target!
 - COMPASS lost polarization before weekend – are now trying to catch up for last 2 days of their run!
- MDs
 - Difficulties with long ion cycle – debugging tedious due to long low duty cycle; made some progress but needs improvements for next MD
 - Successful dedicated MD on crystal channeling – achieved 48% loss reduction in volume reflection mode with non-local crystal



Week 43 / 44 Review



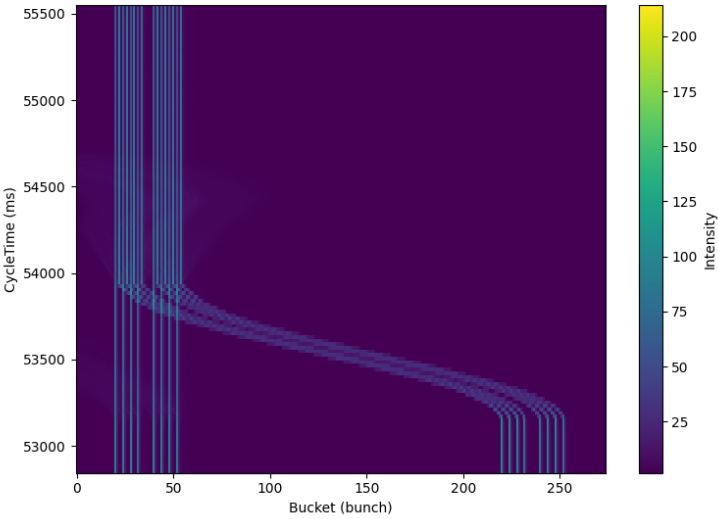
- Programme

- Physics:

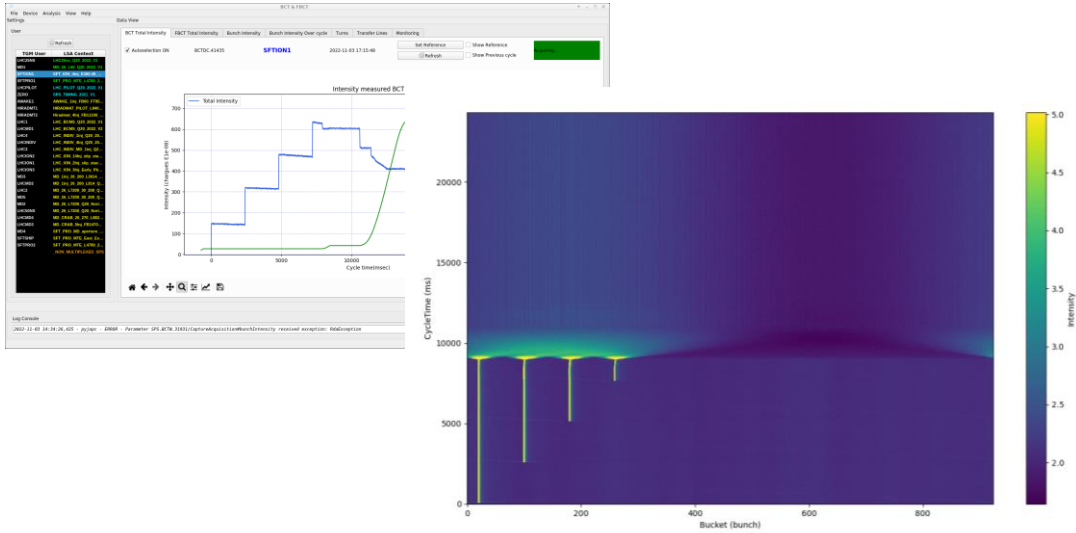
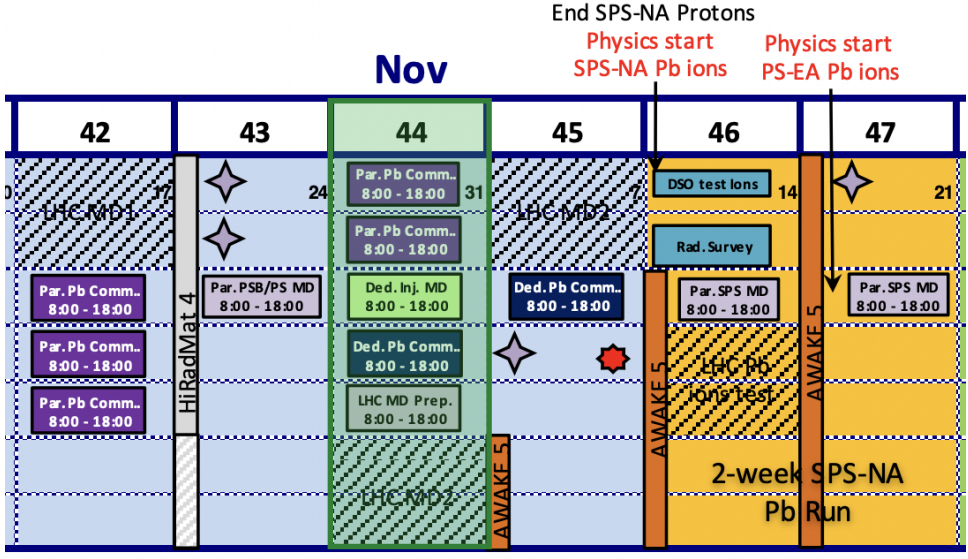
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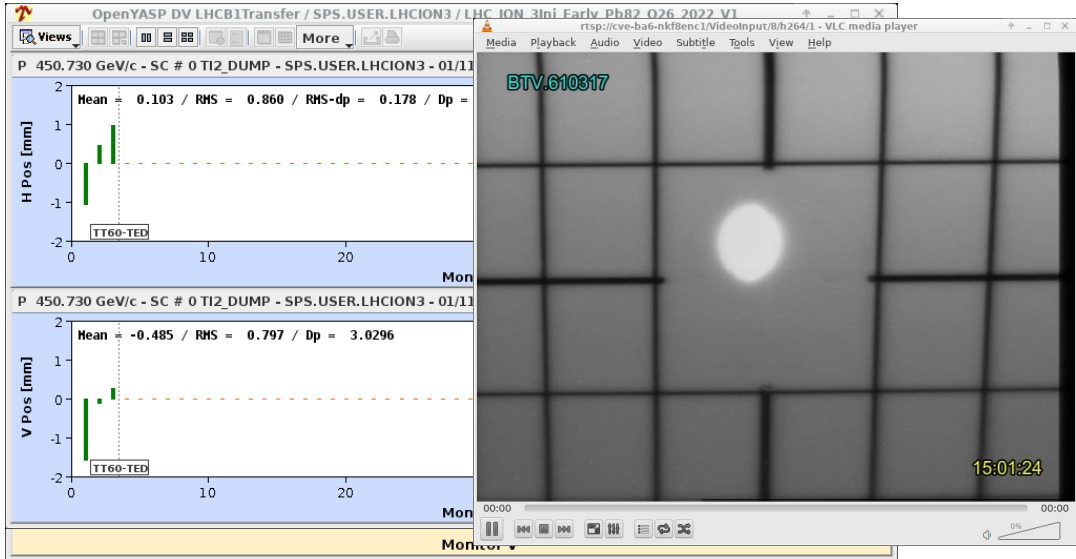
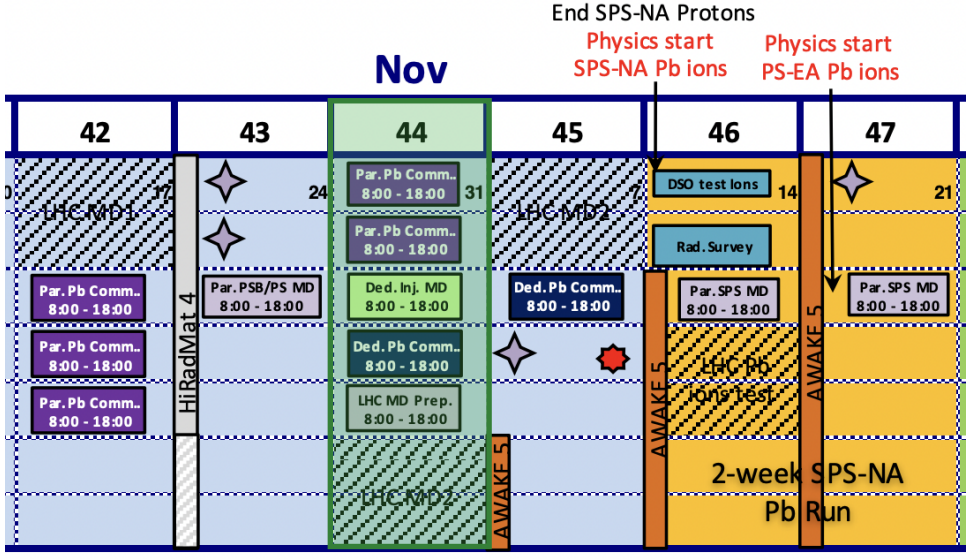
Week 43 / 44 Review



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- LHC
 - Regular delivery of 36 bunches BCMS beams up to $1.5e11$ ppb
 - Dedicated fills test still foreseen for one of the upcoming fills
- Ions
 - HWC for **SFTION progressing slowly**; several difficulties and obstacles faced; new FW deployed and being tested today
 - No more slots officially foreseen for ion commissioning; will need to find additional time if required

Week 43 / 44 Review



Programme

Physics:

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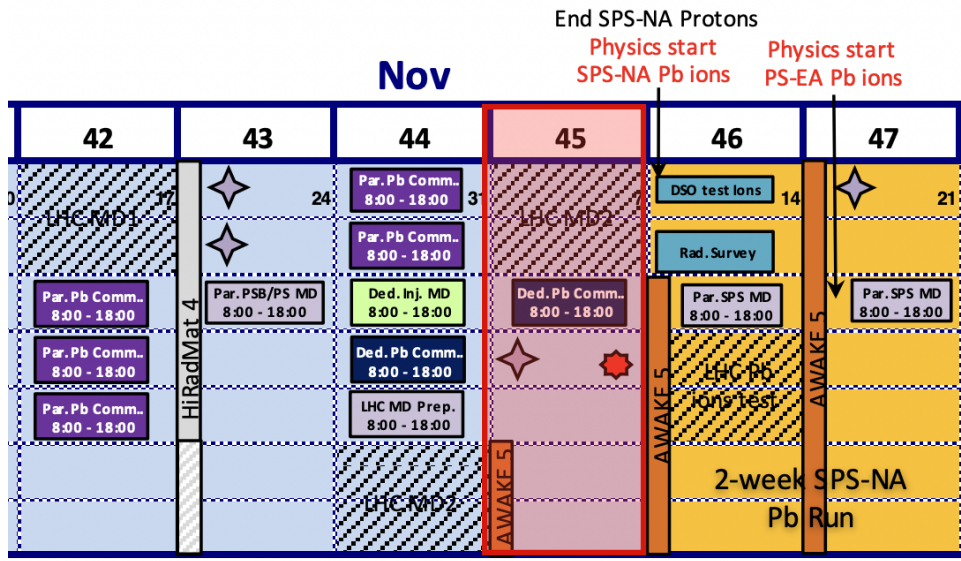
LHC

- Regular delivery of 36 bunches BCMS beams up to 1.5e11 ppb
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Ions

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- No more slots officially foreseen for ion commissioning; will need to find additional time if required
- LHC EARLY ion beams extracted to TEDs

Week 44 / 45 Incoming



- **LHC MD2 Block**
 - Preparation of 8b4e could not be completed on Friday → still needs to be slotted in in parallel to ongoing LHC MDs
- **Additional ion commissioning slots...**
 - Monday / Tuesday during LHC MDs → bad as last protons for COMPASS
 - Oven refill done already last week → Thursday / Friday possibility for additional time – already mentioned at the user's meeting
- **AWAKE**
 - Coming in on the weekend

SPS Supervisor of the week 45 – Arthur Spierer



Weekly 08:45 Weekly Coordination Zoom meeting

Web address: <https://cern.zoom.us/j/6929444357?pwd=bFk2OHdYUXA4NnhiQjcyQ2p0VGxnZz09>

Meeting ID : 692 944 4357



TGM User
MD1
SFTPRO1
AWAKE1
HIRADMT1
HIRADMT2
LHC25NS
LHC1
LHCMD1
LHC4
LHCINDV

TGM User	LSA Context
MD1	MD_26_L60_Q20_2022_V1
SFTPRO1	SFT_PRO_MTE_L4780_2022_V1
AWAKE1	AWAKE_1inj_FB60_FT850_Q2...
HIRADMT1	HIRADMAT_PILOT_L8400_Q2...
HIRADMT2	Hiradmat_4inj_FB11100_FT50...
LHC25NS	LHC25ns_Q20_2022_V1
LHC1	LHC_BCMS_Q20_2022_V1
LHCMD1	LHC_BCMS_Q20_2022_V2
LHC4	LHC_INDIV_1inj_Q20_2022_V1
LHCINDV	LHC_INDIV_4inj_Q20_2022_V1

Setting Correction Optimization

Setting

QF QS

50 Hz

gain 49.00 phase 94.00

100 Hz

gain 95.00 phase 15.00

150 Hz

gain 0.00 phase 0.00

50 Hz

gain 47.22 48.00 set phase 98.73 100.00 set

100 Hz

gain 72.53 90.00 set phase -2.68 9.00 set

150 Hz

gain 0.00 0.00 set phase 0.00 0.00 set

Log Console

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2022-11-04 00:31
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