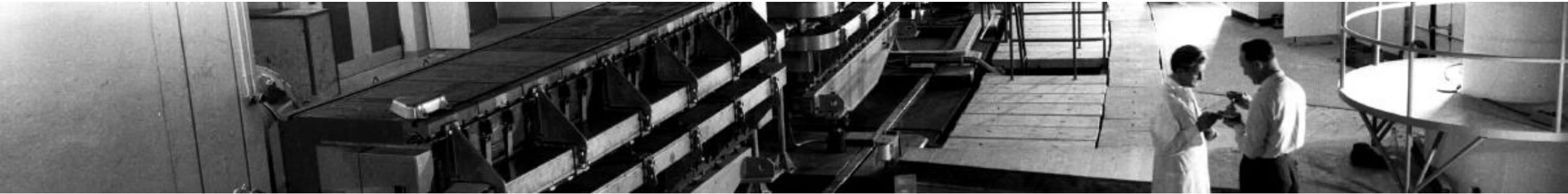
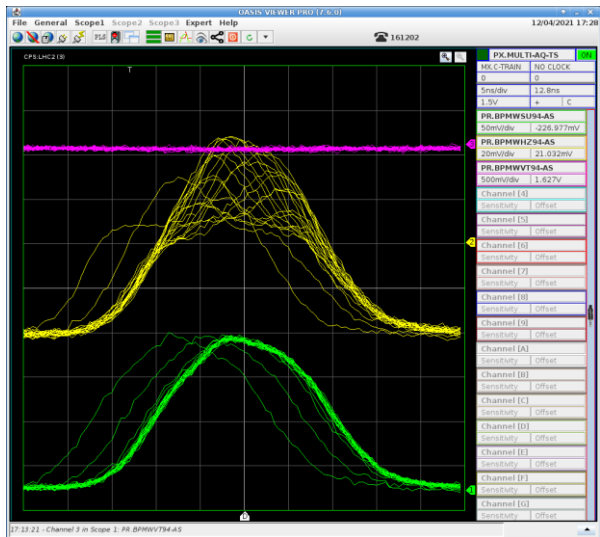
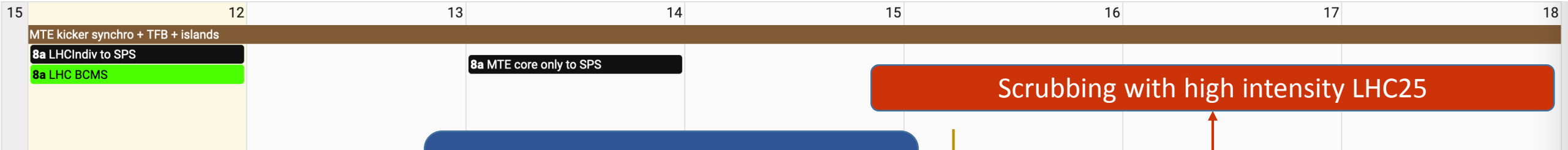


PS Report W15 – “Beam Commissioning”

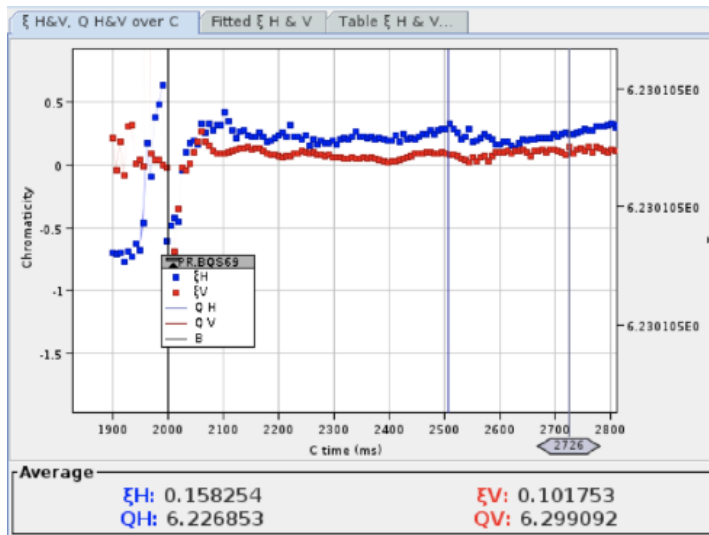


Many thanks to: Fernando, Patrick, Mike, Antoine, Thierry, Pieter, Alvaro, Didier, Thibaut, Denis, Frank, Raul, Vincent, Fabrice, Abdel, Oliver, Stephane, Jeroen, James, Yves, Fulvio, Quentin, Gilles, Raul, Jean-Marc, Todor, Carlo, Heiko, Alexander, Matthew, Ana, Olivier, Dominique, Anthony....

Beam commissioning (2021 week15)



LHC25#72b : injections, losses and chromaticity optimized



LHC25#72b : PFW function regeneration solved this issue

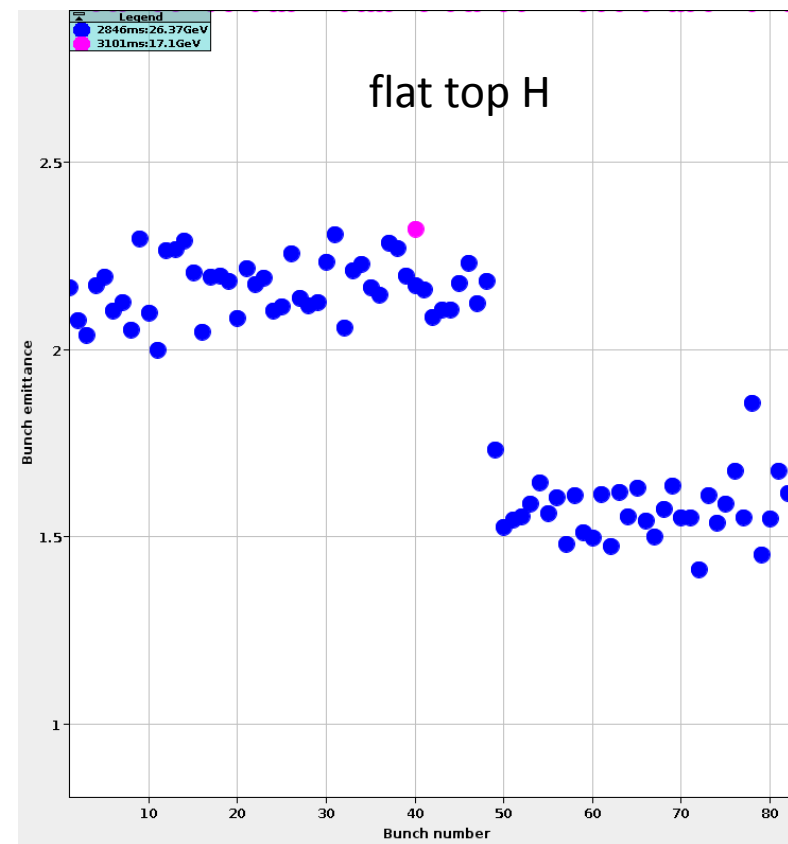
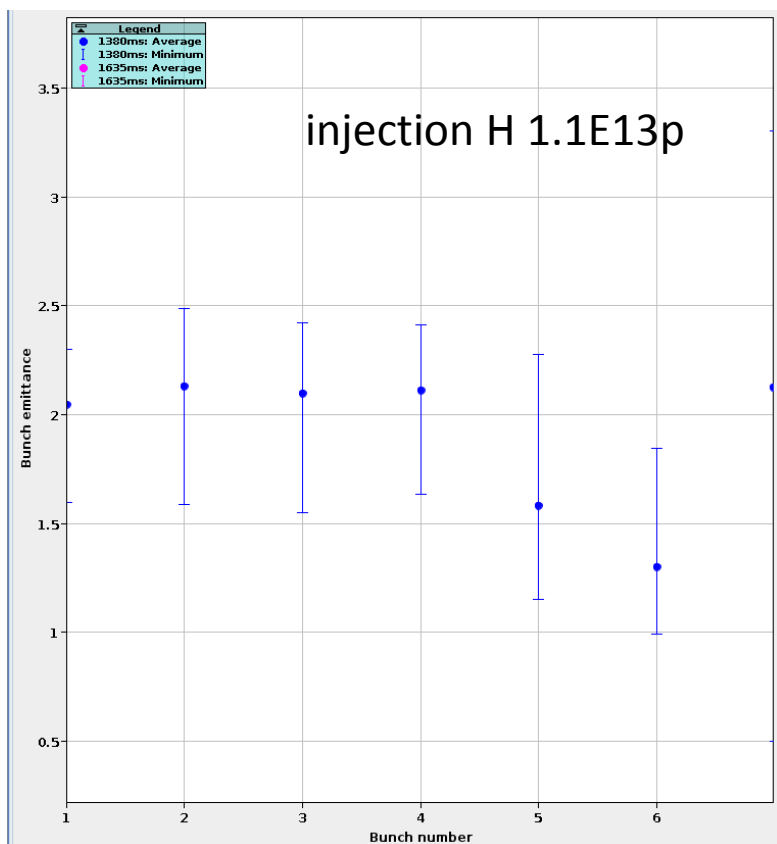
Scrubbing with high intensity LHC25

LHC25#72b : still high losses at extraction with 2x2 splittings and vacuum rise => identified as electron cloud

Internal dump TDI48 has been validated up to an intensity of 1250e10 while TDI47 suffered from a flowmeter issue (to be checked during ITS1)

Wire scanner emittance studies

- With specialist help (predefined settings), we manage to perform measurements
- LHC25#72b injection and flat top
- clear difference 1st/2nd batch – as expected - values still to be verified



Some details / Work in progress

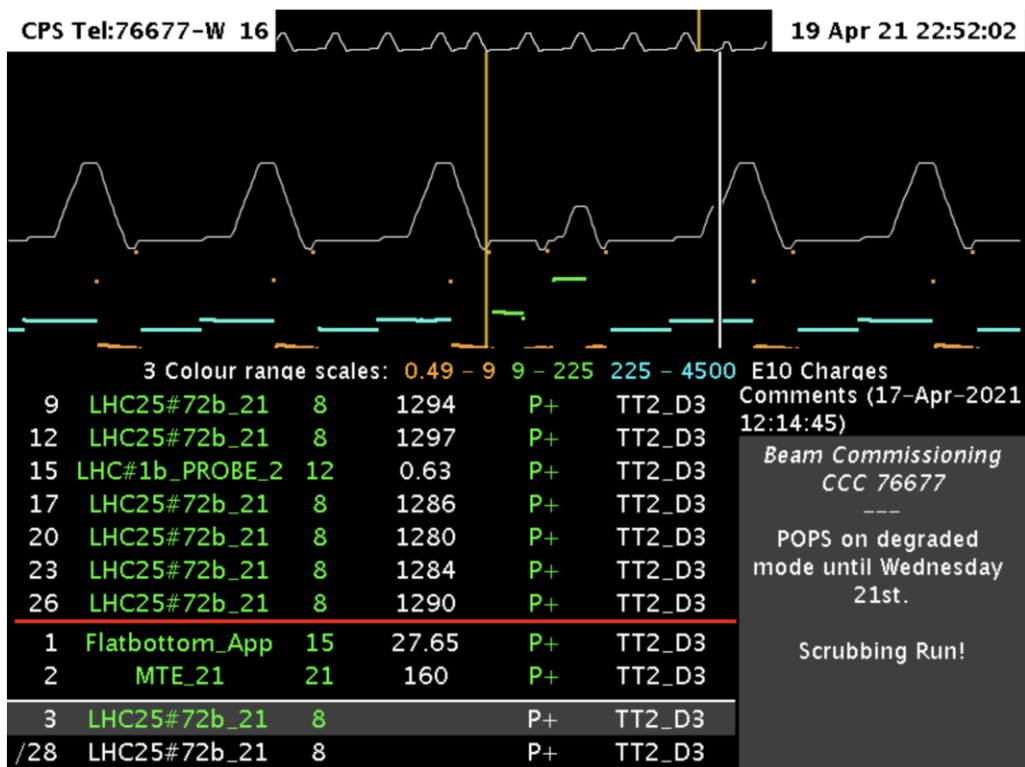
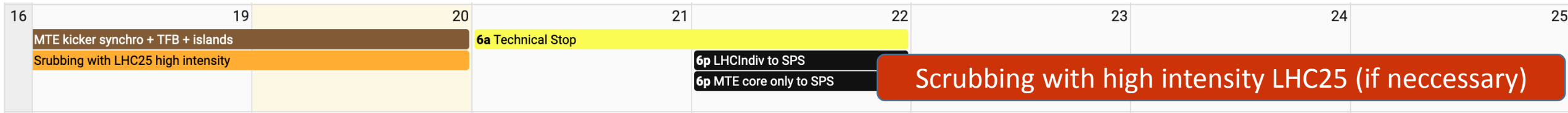
- All along the week, several tests have been performed on **DFAs** (242 and 254) in order to check acquisitions, PPM behaviour and different limits of the system
- **POPS** still in degraded mode all week (intervention planned during TS1)
- **MTE core only** 50e10 for SPS on Thursday basically ready
 - longitudinally all OK
 - some optimization of extraction ongoing, but not critical
- **LHCIndiv** also ready with TT2 trajectory as desired by SPS

PS External Area – Door opened

- Found open on Sunday by HSE-RP
- Door unlocked – seal on the ground
⇒ intrusion in supervised area - by someone in possession of a key - during operation without informing OP
- gas bottle found inside the zone
- Zone patrolled and closed, sealed
- HSE-RP confirmed that bottle not treated as radioactive waste
- Restarted beam
- BE-DSO, EN-ACE, BE-OP and HSE-RP informed
- Planning (with EN-ACE) to remove the bottle during this TS
- Internal Accident Report (A2 form) completed



Beam commissioning (2021 week16)



LHCIndiv and MTE core only (50e10) to SPS

Technical stop

- 8h-9h: Magnet tests for fringe fields in ITE line region (MU 20-22) – special permit
- Consignation / Lockout of POPS, PFWs and C80-88 for survey.
- visual/RP inspection of the machine at high-loss points, cavity 80-88 verification
- 80 MHz fast tuner test
- vacuum sublimation

Questions and Comments

Planning: Started weekly coordination rota

Please contact Coordinator of the week - **Heiko Damerou**



8:45 Daily Zoom meeting during BEAM commissioning

Web address: <https://cern.zoom.us/j/9372114100?pwd=L29BcmIHUENCdFBRSyYVcrM1B4Zz09>

Meeting ID : 937 211 4100

Passcode: 525463