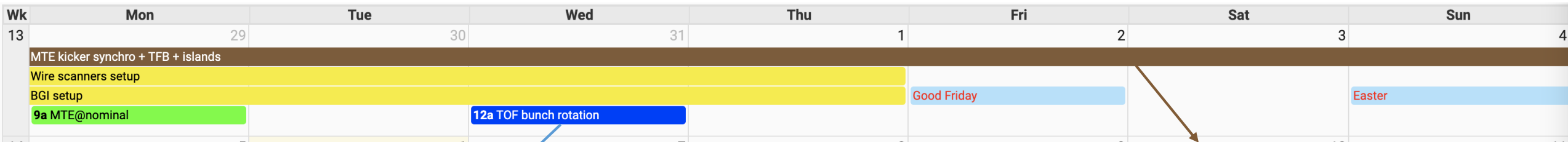


PS Report W13 – “Beam Commissioning”



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....

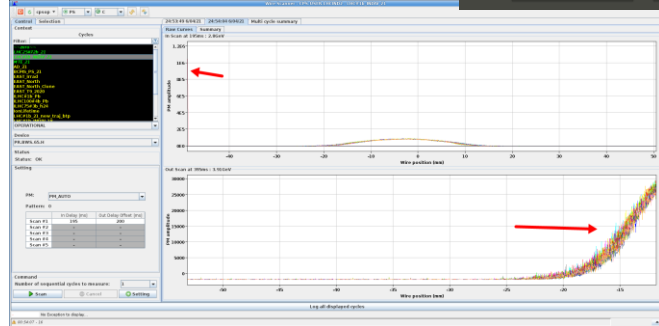
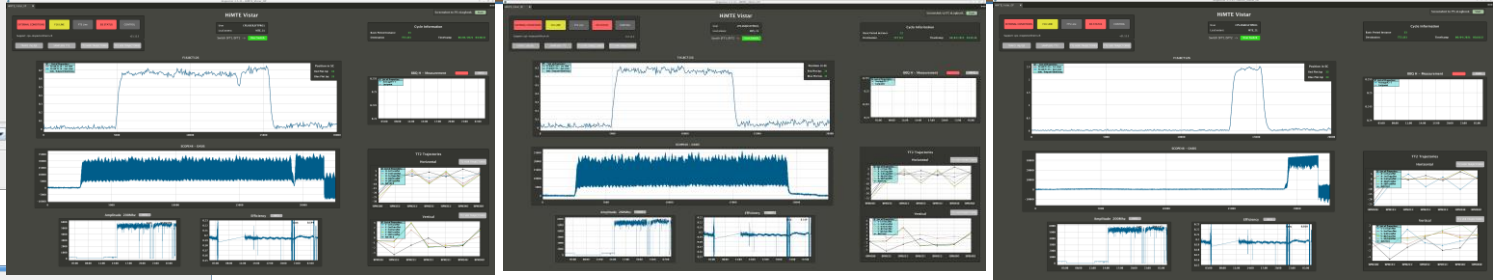
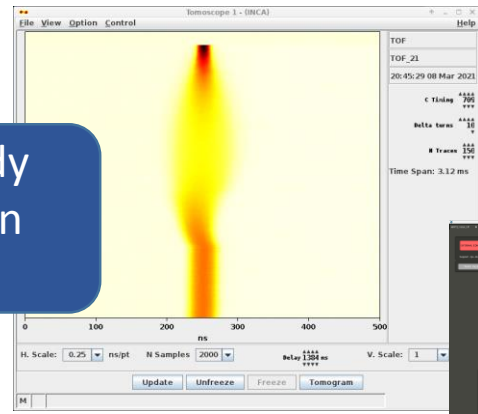
Beam commissioning (2021 week13)



It was already performed in March

Low intensity MTE configuration tested :
 _ full (4 islands + core)
 _ only islands, the core is dumped on PS-TDI48
 _ core only

Several modification of Fast Wire Scanner application in order to solve bugs -> thanks to James OP/SPS



Still some problems to get correct fits from FESA class / sometime the profile is not well centered

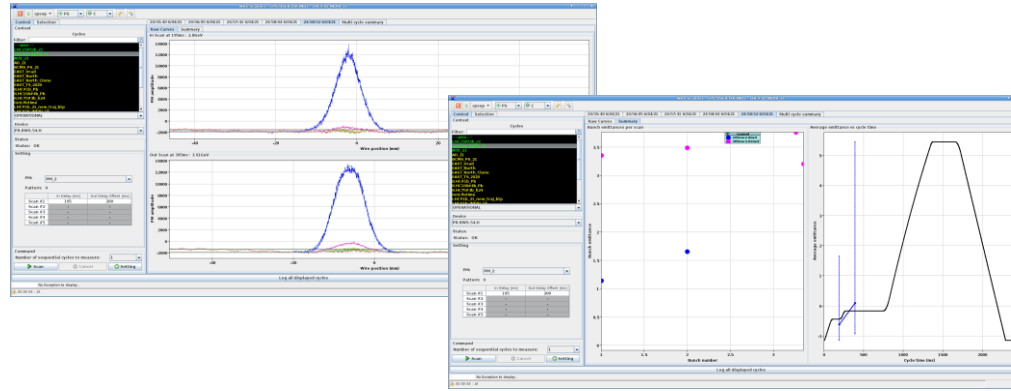
BGI App needs a new release to take correct Beta, Gamma and change Sigma unit.

Wire Scanner / BGI tests with OP application

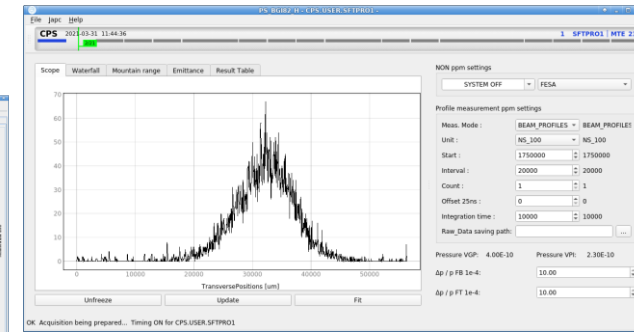
FWS : LHCINDIV 1 bunch

BGI : MTE

- 54H, 65H available
- BGI82H and 84V available
- Debugging FESA class and application in order to get correct emittance values in progress...



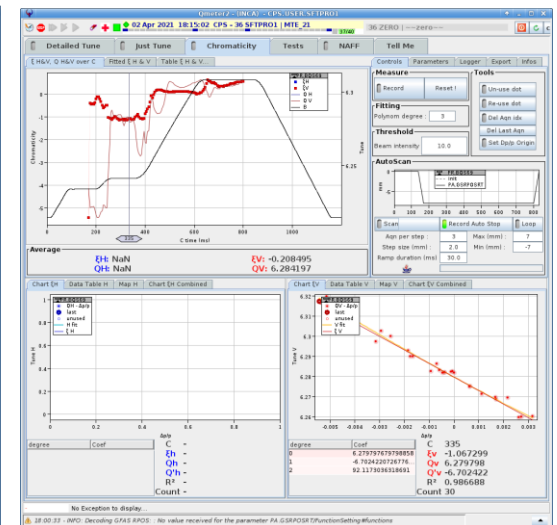
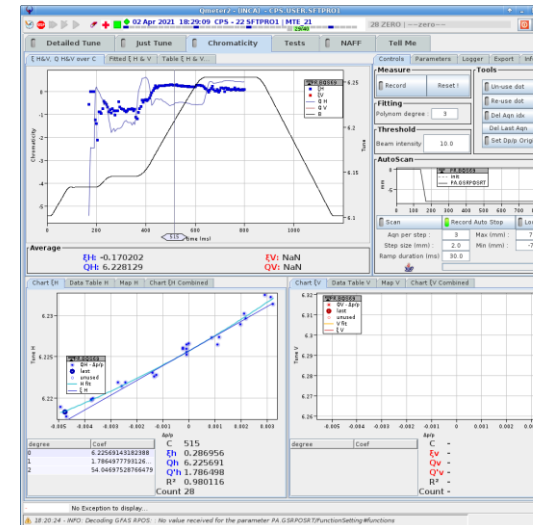
James Ridewood



Marcel Coly

First Chromaticity Measurement

- Following latest release of Qmeter2, Chromaticity measurement is working again in PS. -> Thanks to Pierre Freyermuth



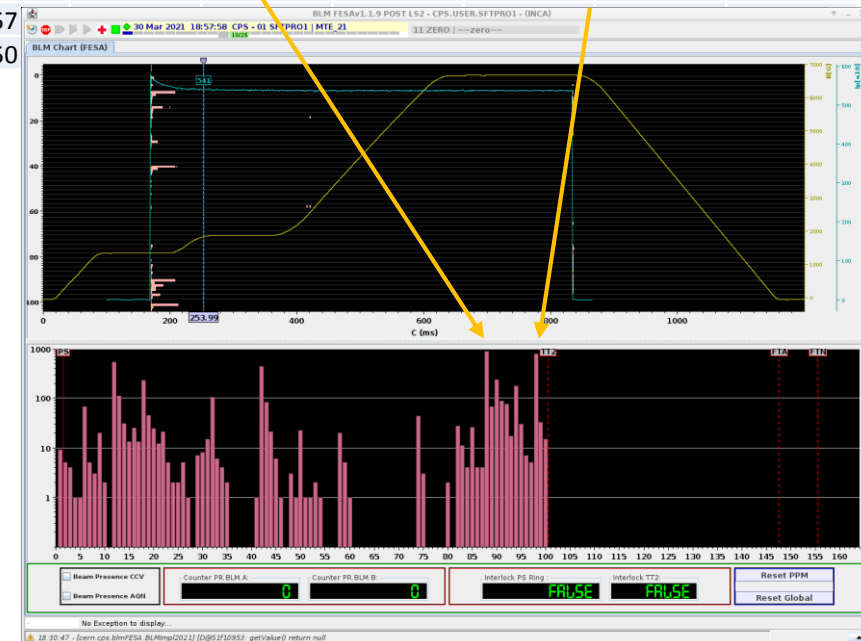
Pierre Freyermuth

Some Items / Measurements

- TFB setup continue
 - Done on LHCINDIV
 - Done with expert in CCC for MTE
 - Ongoing for other beams.
- Survey RP requested around SS88
 - Vacuum spike tripped C80-88,
 - Investigations show a hot spot in MU88
 - RP survey done around SS80-100
 - Losses map reflect what we saw on BLMs
 - Several vertical bumps added during the WE to minimize losses

Element	Inside			Element	Outside		
	40cm	40cm	MU		40cm	40cm	MU
SS78				SS78			
SS79				SS79	2	6	
SS80				SS80	1	1	
SS81				SS81	2	3	
SS82	6	22	160	SS82	4	16	
SS83	120	85		SS83	90	75	
SS84				SS84	12	15	
SS85	23	23		SS85	20	40	
SS86	5	10		SS86	10	5	
SS87	22	12		SS87	10	13	
SS88	150	140		SS88	60	140	100
SS89	28	40		SS89	20	35	
SS90	76	50		SS90	100	65	120
SS91	85	45	80	SS91	30	80	
SS92	12	72		SS92	25	50	50
SS93	24	20		SS93	15	20	
SS94	80	35	40	SS94	70	35	
SS95	30	15		SS95	14	13	
SS96	5	6		SS96	4	5	
SS97	15	12		SS97	7	8	
SS98	120	95		SS98	100	120	
SS99	53	57					
SS100	12	50					

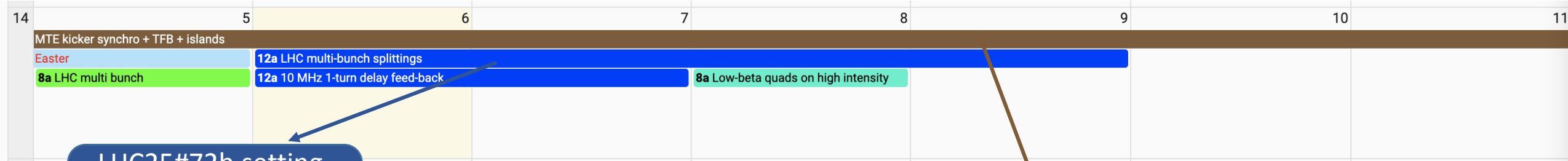
Nadine Conan



Some details / Work in progress

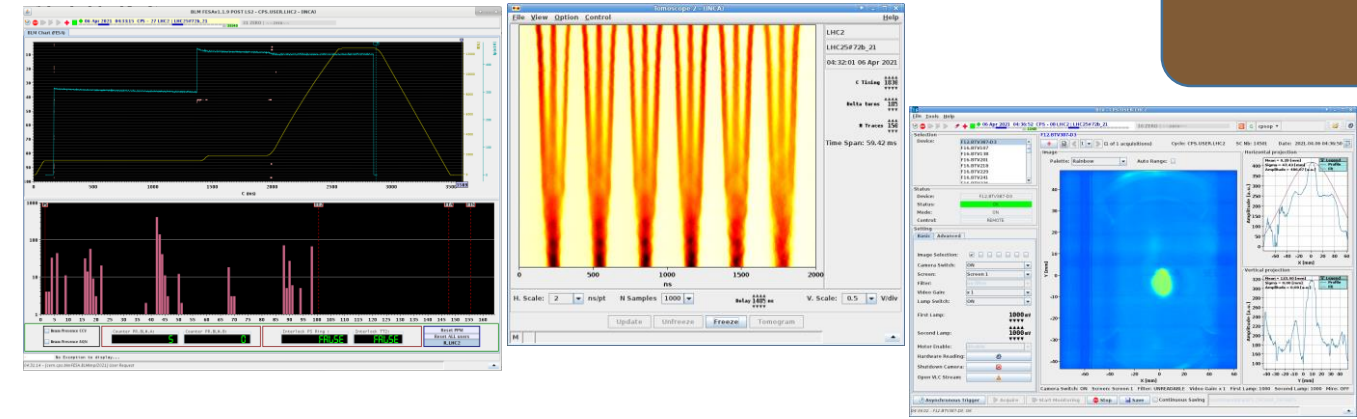
- MTG modification for STPs and BHZ377, 378 in TT2 and BFA9 External Condition -> Done
- Qmeter2 modification for chromaticity measurements. -> Done
- BGI instruments given to OP to start measuring the beam -> ongoing
- BLMs / BLM vistar
 - noise on TT2 monitors still present -> TT2 BLM unusable as it is
- PFW compensation with Bdot signal
 - Problem with simulated Bdot signal -> Solved, works with measured and simulated
- Several no-blocking issues during Easter week-end :
 - Problem with C76 -> C11 in operation -> C76 needs amplifier exchange
 - Problem with TPS15 -> Requested position = 120mm (OUT) device stuck in position 115mm -> fixed this morning
 - Problem with KFA45 module3 -> Injection works with only 3 modules
 - BPM gates in TT2 need to be checked -> OASIS config adjustment done

Beam commissioning (2021 week14)



LHC25#72b setting-up started during easter week-end

When TPS15 is back, some work on shadowing TPS15-SMH16 is needed



Beam status

LHCINDIV 1 to 4 bunches ready for SPS except transverse verification

MTE low intensity Core-only, full-5-turns, islands-only ready except transverse verification

Questions and Comments

Planning: Contact **Denis** and **Frank**



17:00 Daily Zoom meeting during BEAM commissioning

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

Meeting ID : 937 211 4100

Passcode: 525463