Status Report

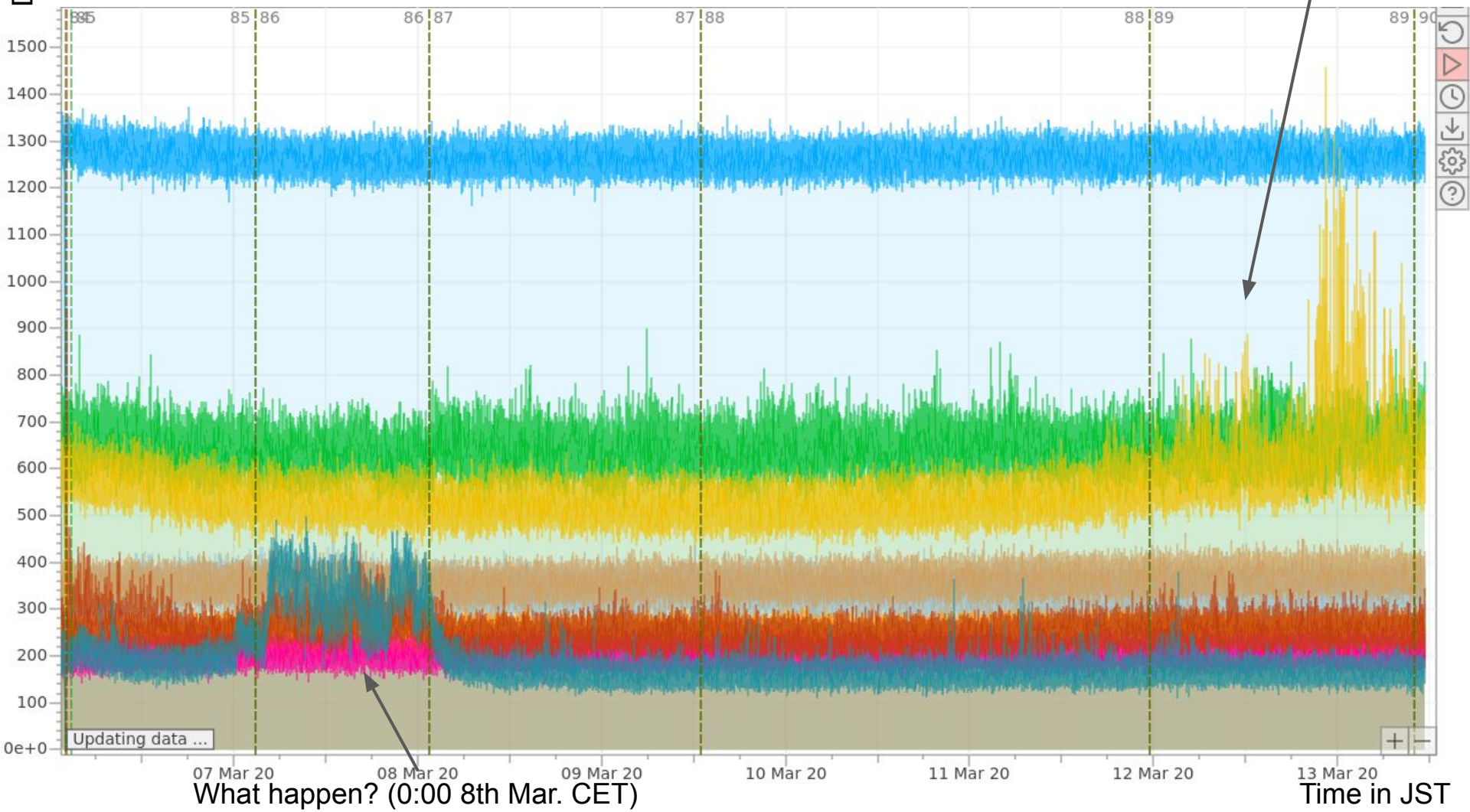
Shota Izumiyama
13 Mar. 2020
mPMT-Japan meeting

MEMPHYNO monitoring

- The mPMT is running for about one week in MEMPHYNO
- I am monitoring it and changing the run daily

Dark rate of one week

- Totally, all PMTs look stable w/o day/night effect
- Is it OK to stop the run? I will analyze the data



of run

- Run time ~ 8 days, data size ~ 275 GB
- I will copy the data to sukap (or kuze-lab server ?)

85	5 Mar	18:55	18:55 of 6 Mar	11 PMTs of Th 2330mV and various HV (same with run69)	none		Long term run: there was a step of dark rate: see log book
86	6 Mar	18:55	17:30 , 7 Mar	11 PMTs of Th 2330mV and various HV (same with run69)	none		
87	7 Mar	17:30	05:00 of 9 Mar	11 PMTs of Th 2330mV and various HV (same with run69)	none		
88	9 Mar	05:00	15:34 of 11 Mar	11 PMTs of Th 2330mV and various HV (same with run69)	none		I forgot to change the run
89	11 Mar	15:34	02:11 of 13 Mar	11 PMTs of Th 2330mV and various HV (same with run69)	none		
90	13 Mar	02:12		11 PMTs of Th 2330mV and various HV (same with run69)	none		

Plan of analysis

- Time-trend of dark rate
  - 1. Divide some time period, ex. 1 hour?
  - 2. Make charge-distribution
  - 3. Find 1 pe position with fitting and threshold (around the valley?)
  - 4. Calculate # of hits above the threshold
- Check the stability of the dark rate in the time-trend

Others

- TS in root-file:
  - I confirmed that this TS means unix time as Mathieu said
  - The inconsistency around the TS and real time came from the time inside mPMT linux.
  - mPMT time is not set correctly and TS of root-file is same with mPMT's unix time

← time of mPMT

↑time of memphyno PC (looks correct)