

Low Energy RHIC electron Cooling (LEReC)

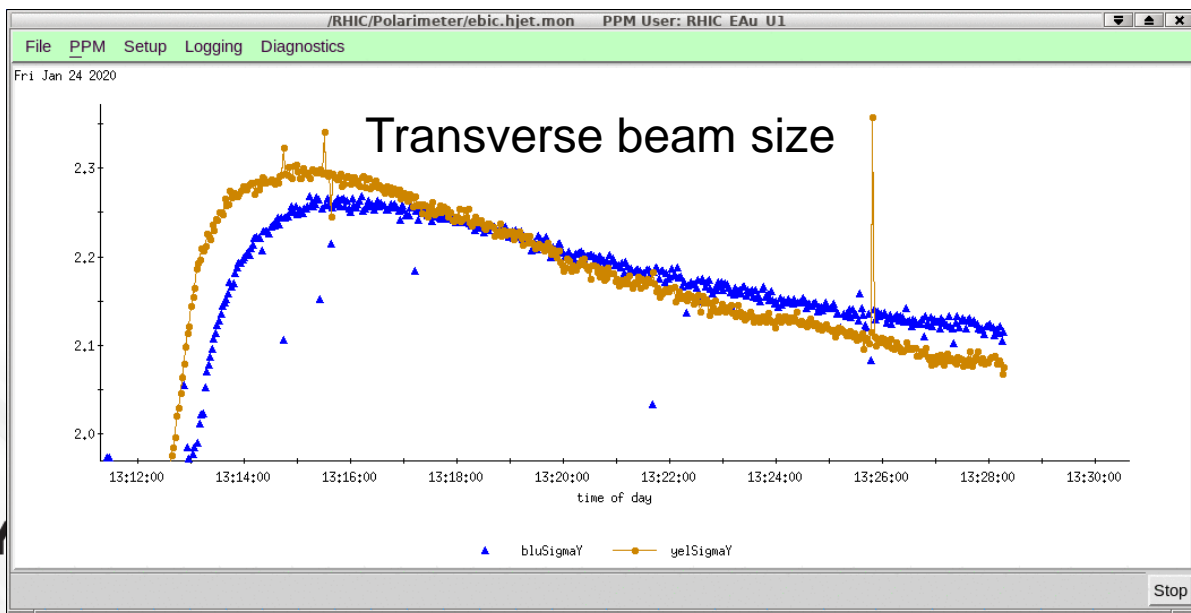
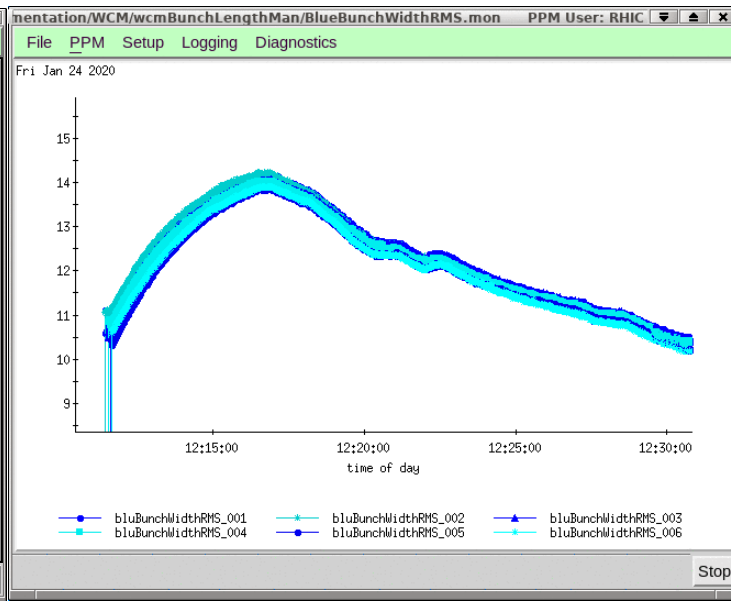
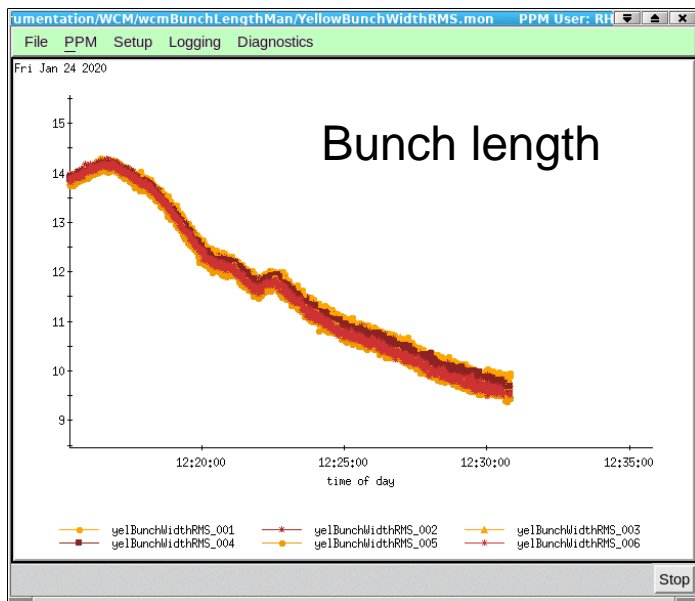
RHIC Time Meeting
January 28, 2020

BROOKHAVEN
NATIONAL LABORATORY

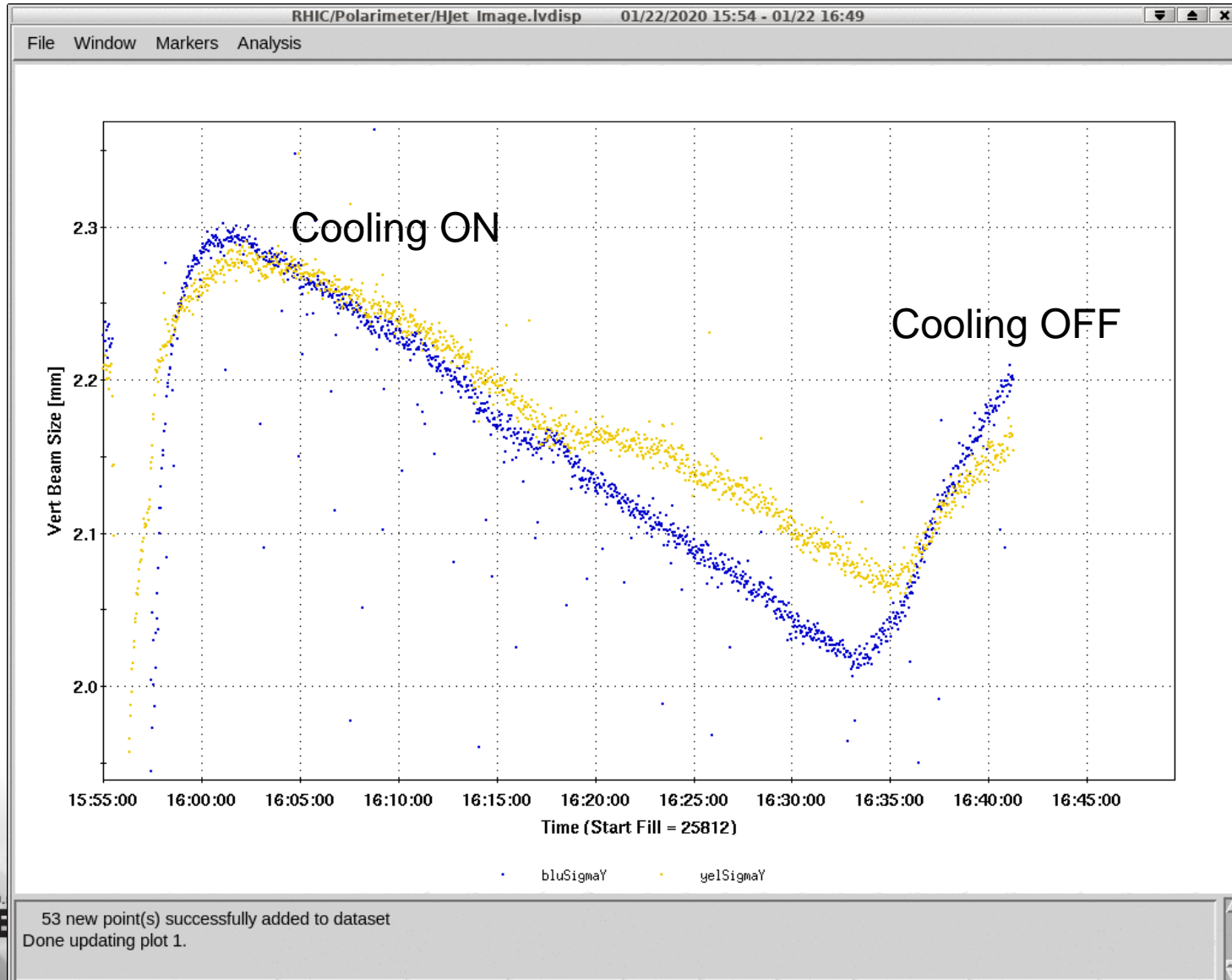
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ENERGY

LEReC progress/updates for January 21-27

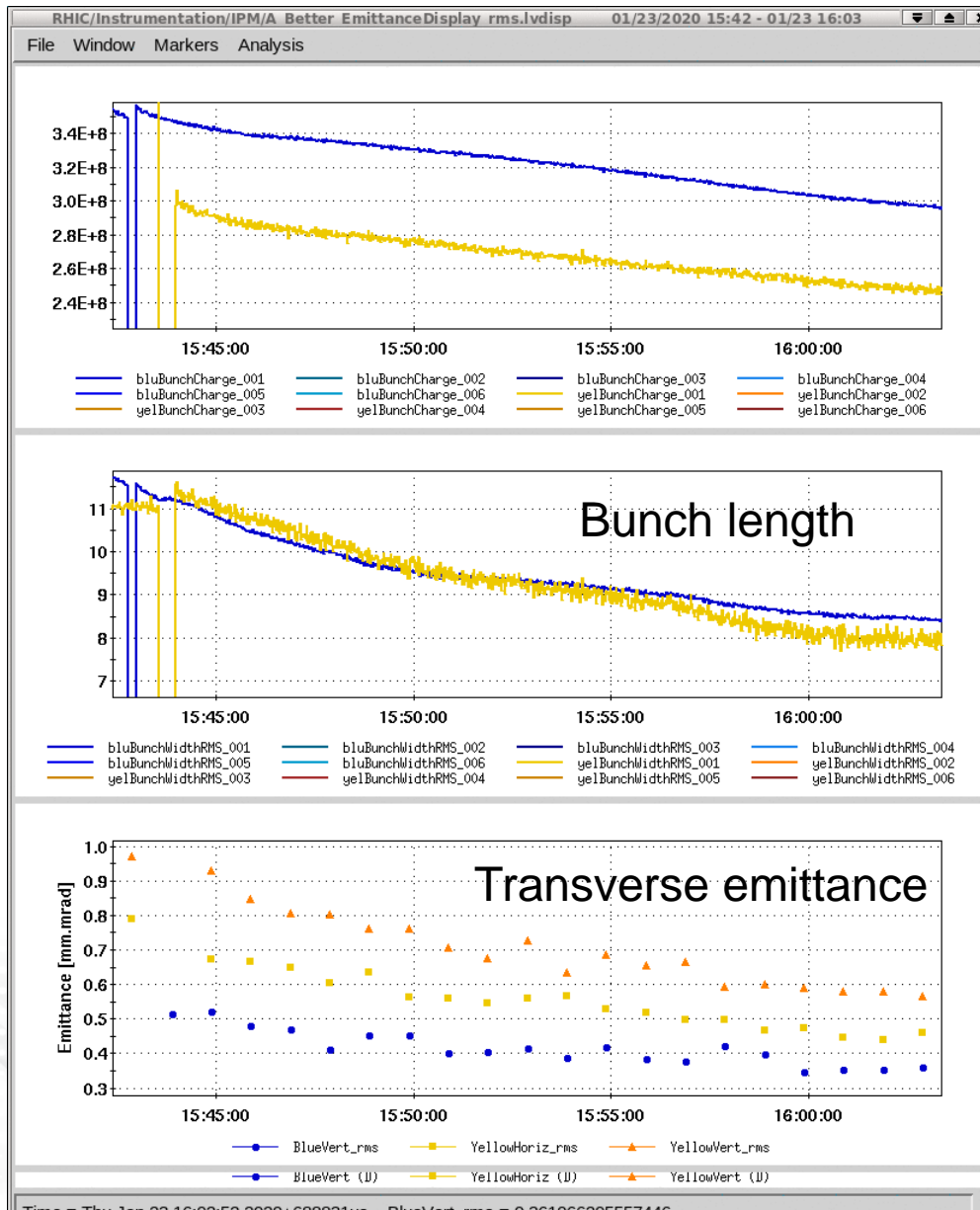
- LEReC had three shifts during this period.
- Old RF Timing was used to work on optimization of transverse cooling
- Tested beta-squeeze at STAR in the presence of cooling
- On January 27 RHIC 9MHz RF was re-tuned to old configuration so that we can optimize cooling with collisions in STAR.



Transverse cooling



Cooling with beta squeeze



LEReC status and plans

- Worked on cooling optimization with old Timing configuration
- Tested beta-squeeze with cooling
- 9MHz RF was tuned to allow collisions at 9.2GeV c.m. in STAR

Plans:

- During fixed target period LEReC will start optimization of cooling with collisions at STAR
- At the end of fixed target period the plan is to run collisions at 9.2GeV c.m. with cooling for a few days to establish baseline for physics running at 9.2GeV c.m.