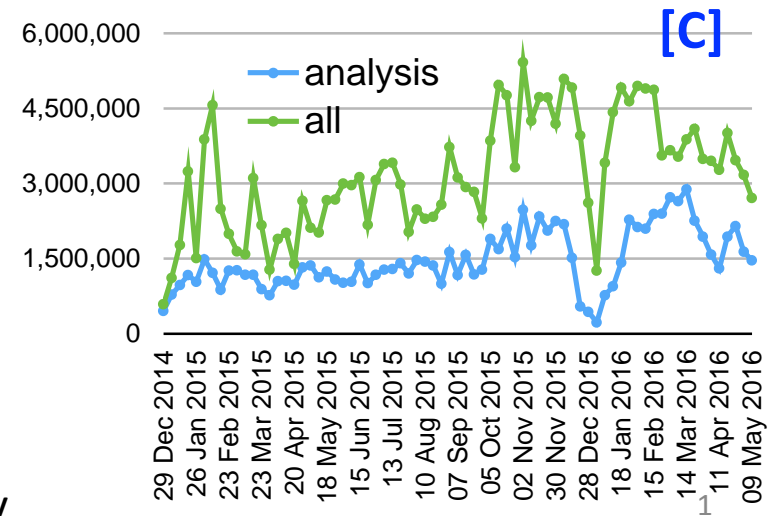
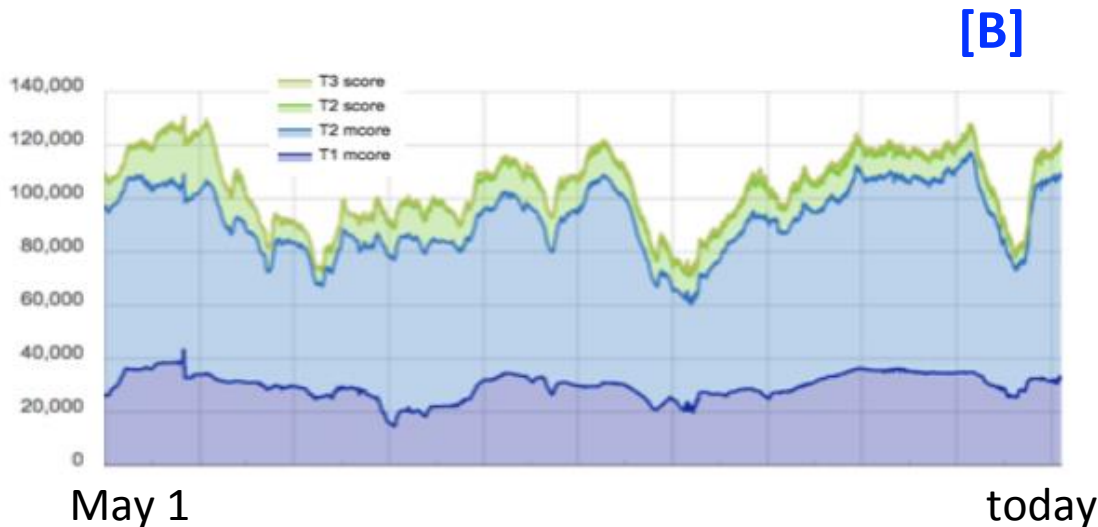
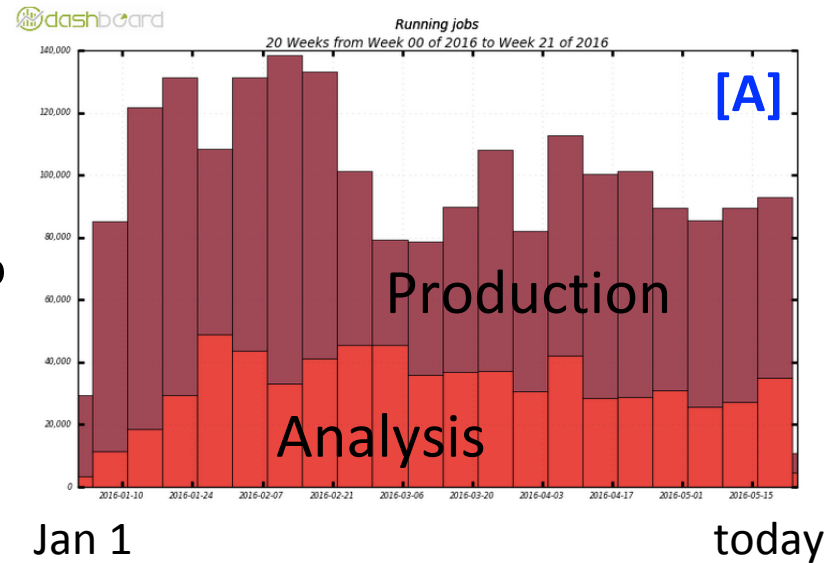


# CMS: Operations Activity load remains high

- Run-2 resume in 2016 was smooth
- 2016 **Tier-0** and **CMSSW** software deployed with no hurdles
- **global pool [A]** handles ~100k jobs regularly
- **multicore [B]** deployed at the Tier-2 level too
- Load in **distributed analysis [C]** higher than 2015, systems are keeping up
- Starting preparation work for **p-Pb run** for Heavy Ion program



# CMS Software development towards 2017

- Major detector changes planned for 2017
  - All new pixel detector including 4<sup>th</sup> layer of pixels
    - Especially important as pileup increases as the upgrade addresses both data flow limitations in current detector
    - Biggest impact for software is new track seeding capabilities given 4<sup>th</sup> layer
  - Upgraded electronics in HCAL endcap
    - This upgrade was previously planned for LS2 but has been partially moved to the EYETS given aging effects observed during data taking
    - Provide TDC capability and effective depth segmentation

CMS will produce all new detector simulation samples for 2017-2018 data taking. Major reconstruction software changes planned to be ready for production before data taking starts

Software for  
HL-LHC  
TDRs in  
developed at  
the same time