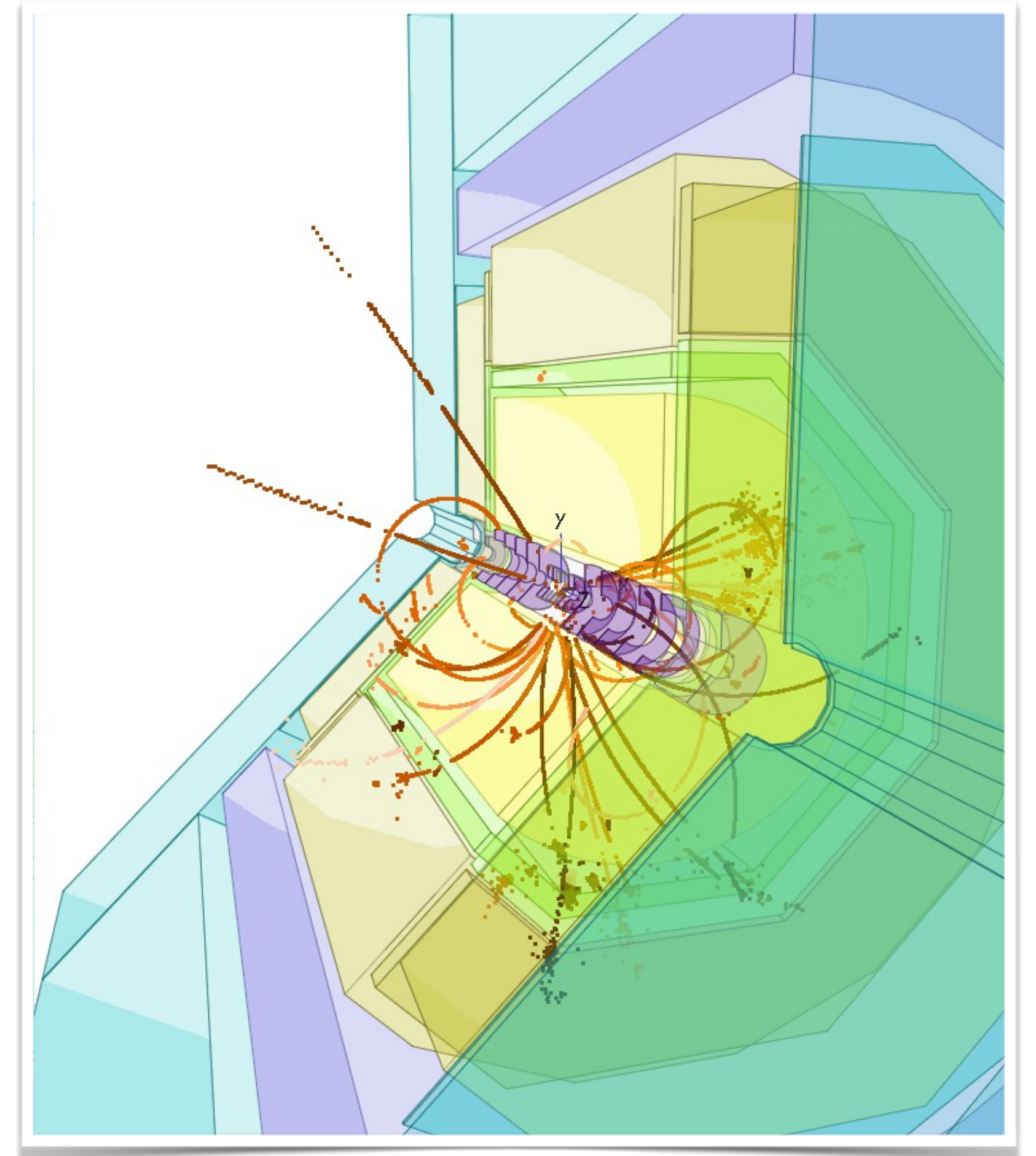# Software Coordinator Report

ILD Software and Analysis Meeting
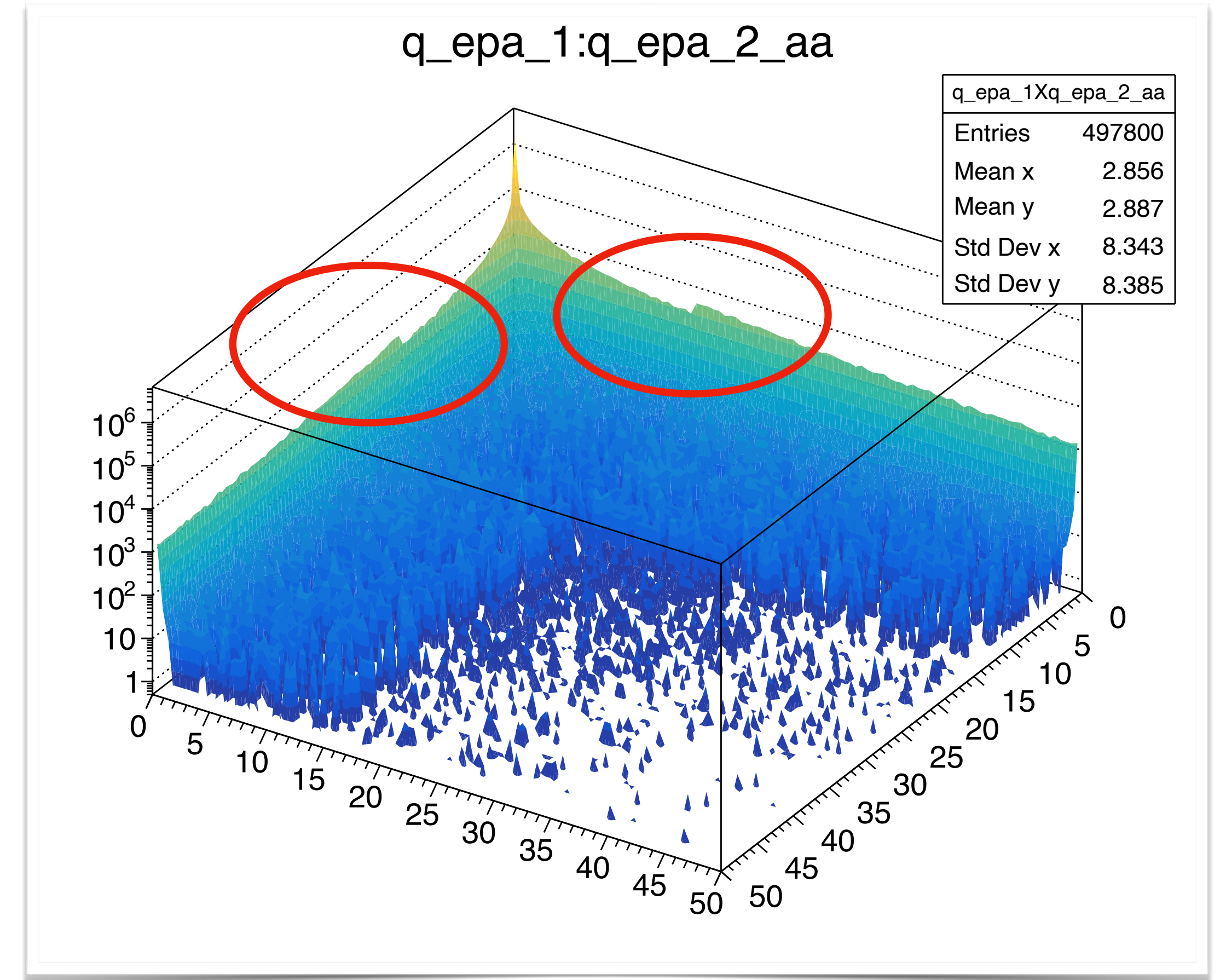
Frank Gaede, DESY, 18.11.20
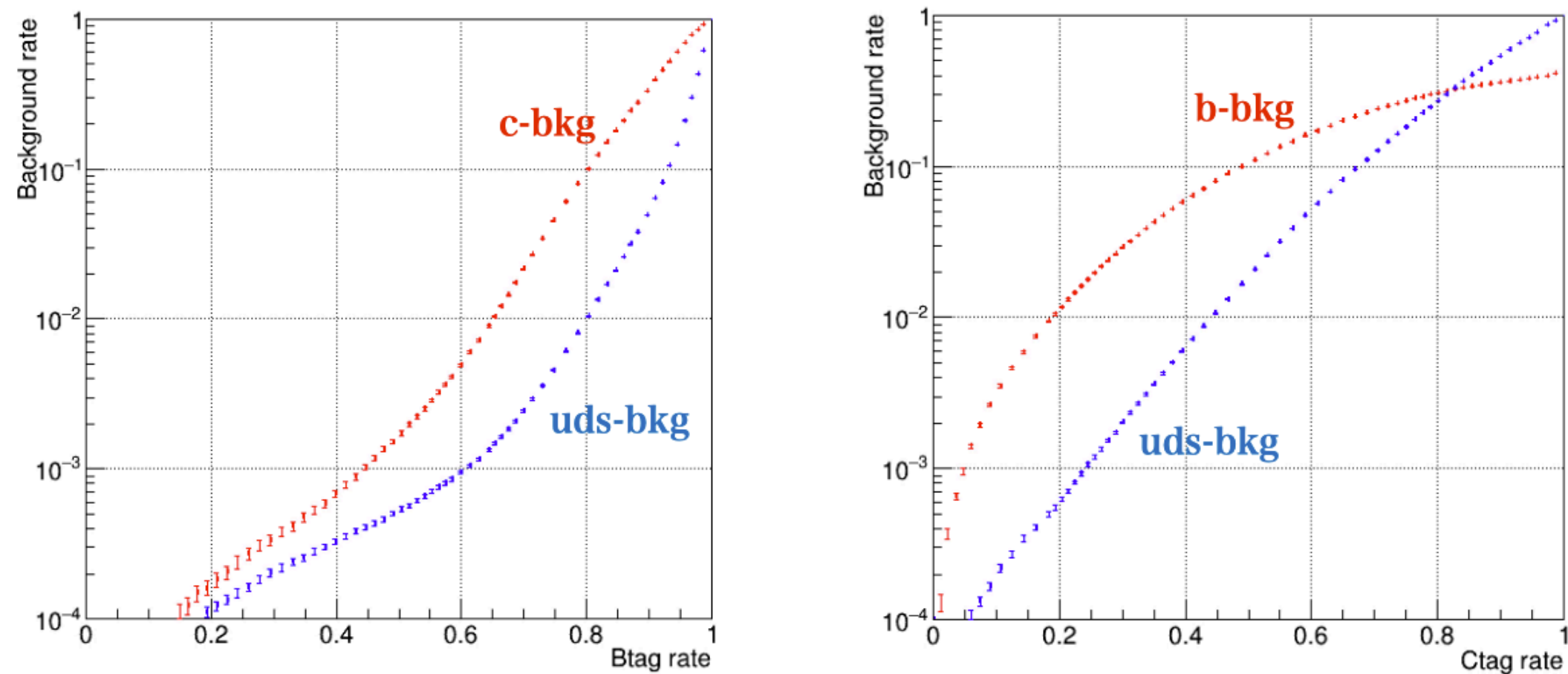
Generator

M.Berggren, J.Tian

- basically all 2f-5f samples finished, except virtual photons samples:

- working on a problem with cross section of samples with virtual photons
  - 4 cases w/ different Q^2 cuts
  - observe factor two too large cross sections in two cases and jump in Q^2
  - reported to Whizard authors
  - waiting for reply/fix
  - …

- all higgs samples done

- next step will be 6f samples
  - somewhat lower priority

q_epa_1:q_epa_2_aa

q_epa_1Xq_epa_2_aa	
Entries	497800
Mean x	2.856
Mean y	2.887
Std Dev x	8.343
Std Dev y	8.385

Reconstruction

R.Ete
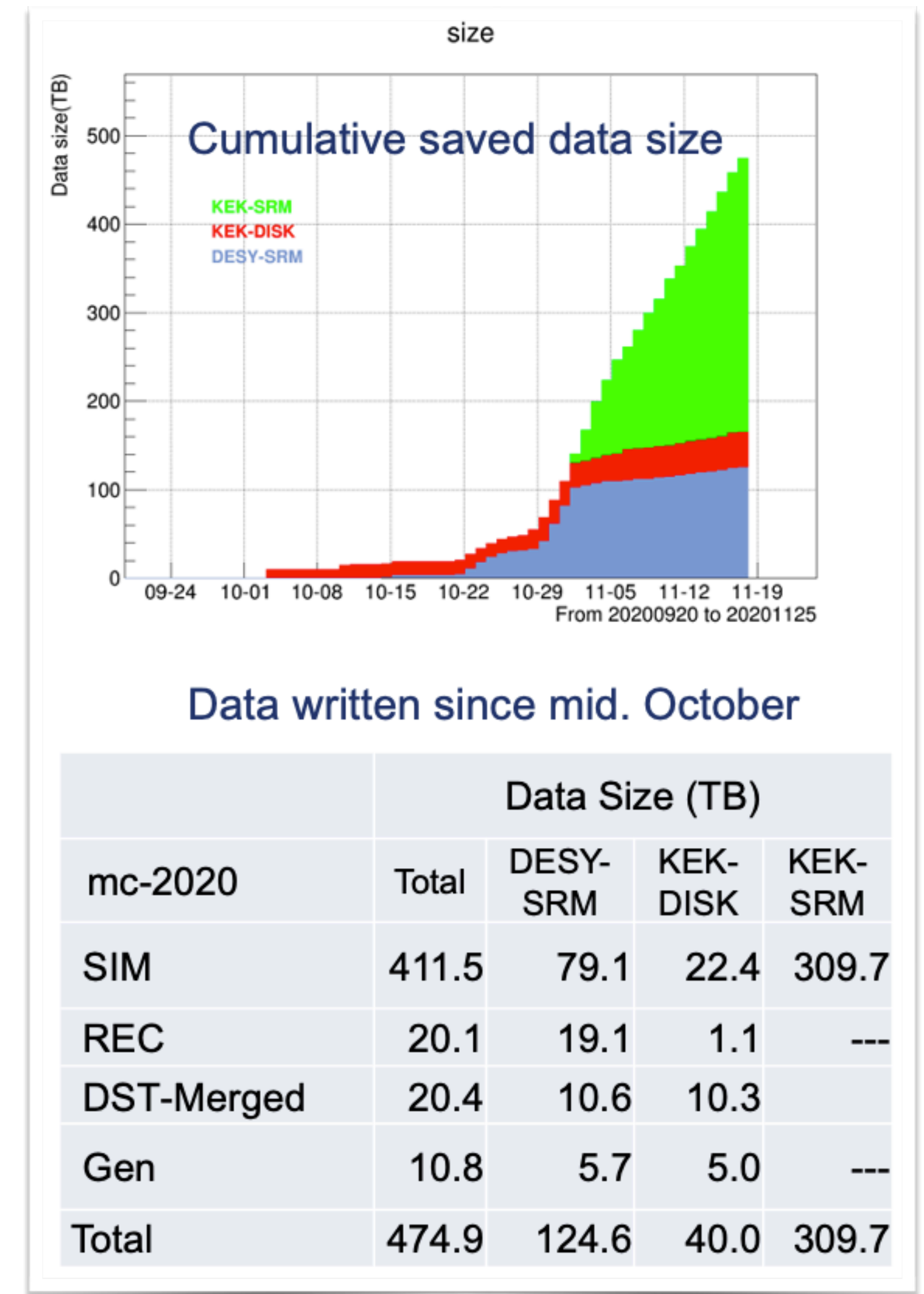

Flavour tag performance (4-jet(ZZ) sample)

Similar results to previous (IDR) ones

- new weight filed for flavour tagging for new 250 GeV samples created

  - see talk R.Yonamine last ILD SW&Ana meeting

- created new ILDConfig release: **v02-02-p01**

  - for details see: https://github.com/iLCSoft/ILDConfig/releases/tag/v02-02-p01

- use this for analysis
  - fully compatible w/ production tag v02-02

Monte Carlo Production

A.Miyamoto, H.Ono

- New samples produced since last meeting
    - Latest information is in https://ild.ngt.ndu.ac.jp/elog/dbd-prod/
    - 250 GeV SM samples,
        - 4f-Mid Xsect samples : Done except 4f_singleZee (now in progress)
        - 4f-High Xsect samples : Done 500 fb^{-1}
        - 2f-leptonic : Done 2500 fb^{-1}
        - 2f-hadronic : Done 100 fb^{-1} (~1 week. ~1.5TB)

    - Next
        - Higgs exclusive decay
        - 3f, 5f, aa_2f

- Files
    - DST-merged : DESY-SRM and KEK-DISK
    - REC files : Keeps 10% of sim files, but 500 rec files max. DESY-SRM only.
    - SIM files : For the moment, keeping all files at KEK-SRM
        → When the empty space left low, the production will continue without keeping sim files.
            → Would be after Higgs exclusive decay or little more.
            → Suspend the production to update the production scripts.

size

Cumulative saved data size

KEK-SRM
KEK-DISK
DESY-SRM

From 20200920 to 20201125

Data written since mid. October

mc-2020	Data Size (TB)			
	Total	DESY-SRM	KEK-DISK	KEK-SRM
SIM	411.5	79.1	22.4	309.7
REC	20.1	19.1	1.1	---
DST-Merged	20.4	10.6	10.3	
Gen	10.8	5.7	5.0	---
Total	474.9	124.6	40.0	309.7

decided to stop the production after Higgs samples and implement new scheme for keeping O(10%) of SIM files

Monte Carlo Production

A.Miyamoto, H.Ono
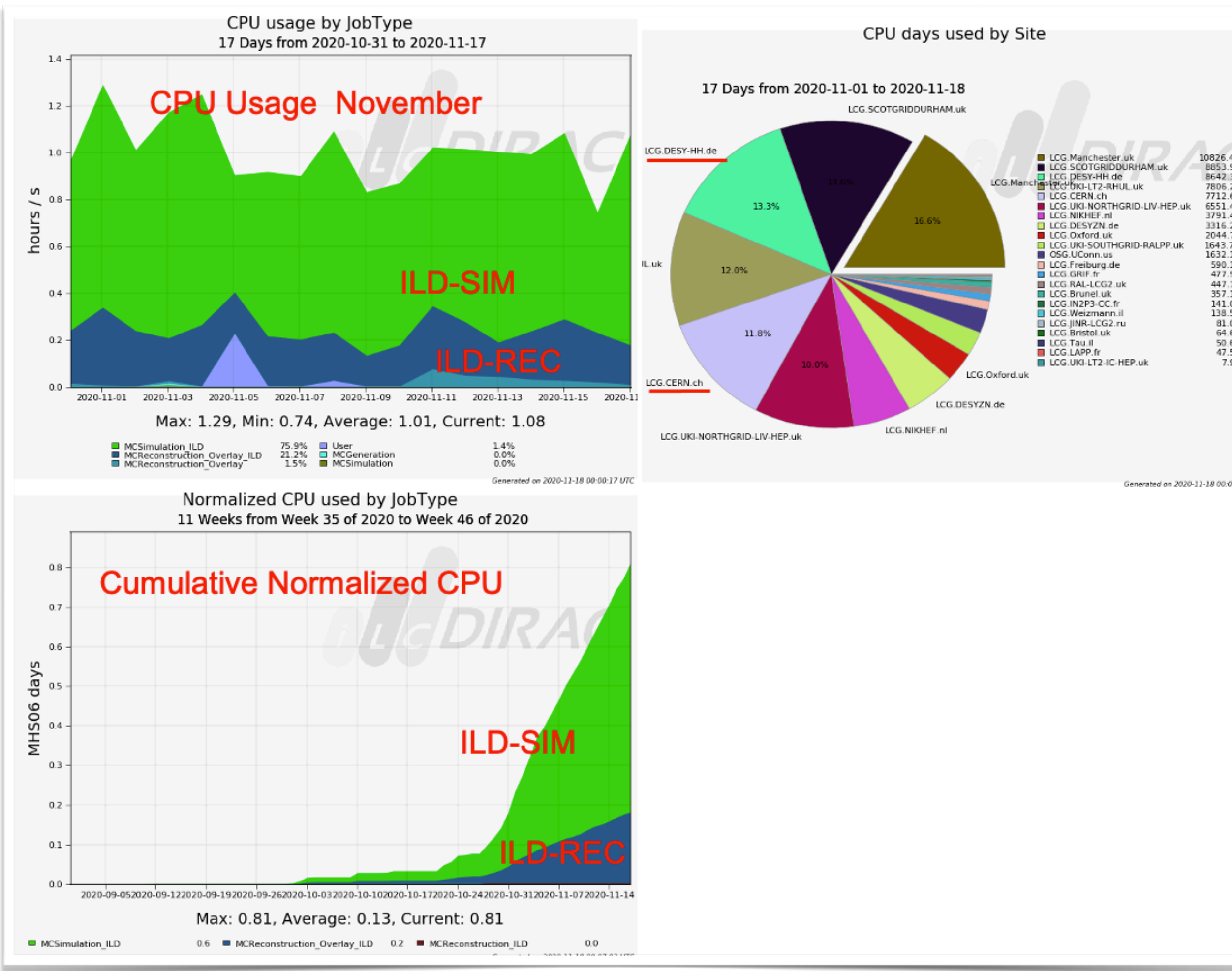
- rather **smooth running** so far:
  - making good use of the available resources
  - ~ 3500 jobs running in parallel continuously
  - reasonably distributed among major Grid sites supporting the ILC VO

- observed 0.1% of 2f_hadronic jobs *crashing with infinite loop*
  - reproducible at KEK-CC
  - under investigation by D.Jeans
  - …