Karlsruher Institut für Technologie


weekly tracking meeting

# FUN WITH REAL DATA

04.05.2018

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# THE SETUP

## Repository

You can find all code related to processing first data here: `https://stash.desy.de/users/nbraun/repos/first-tracking-collisions/browse`. The harvesters were mostly written by Felix (he did all the hard work).

You need to have gridcontrol installed to run the scripts properly (although you do not have to). Everything is described in the README.

# THE SCRIPT

1. Set database to the correct tag (e.g. `332_COPY-OF_GT_gen_prod_004.11_Master-20171213-230000`)
2. Read in input file without "ROIPayloads" (leads to problems when running the full HLT reconstruction)
3. Add Geometry from database (thanks Thomas Lueck)
4. Add unpackers
5. Add track finding with `svd_ckf_mode="VXDTF2_before_with_second_ckf"` and modified `SVDSpacePointCreator` (`MinClusterTime` set to -999).
6. Add the three harvesters.

# THE HARVESTERS

- There is currently a PR ongoing with the harvesters and you can also find them in the git repo from above.
- You can look up the harvested information in the notebook or in the script files.
- In the end, there are ROOT files for each input ROOT file.
- There are ROOT files with event information, track information and hit information (attention, they are large).

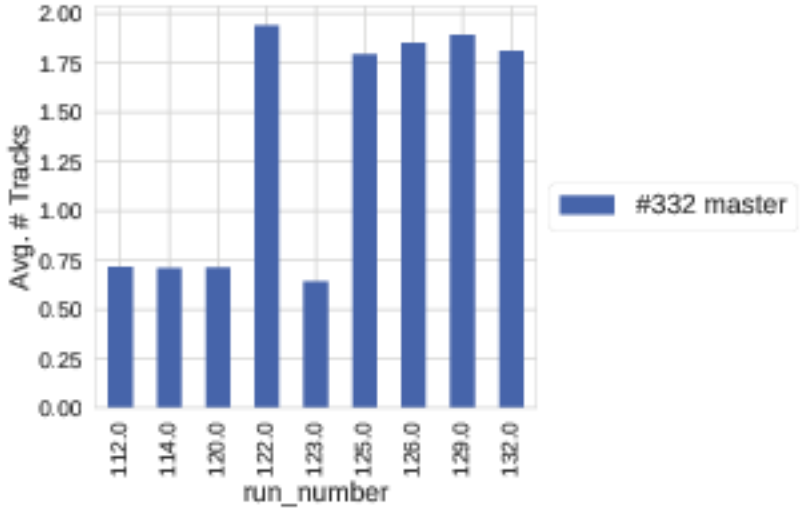
# FIRST RESULTS

In the following, I show data with:

- master commit f103ce3c46548bd91a88352b183601ee57859037
- database tag
  332_COPY-OF_GT_gen_prod_004.11_Master-20171213-230000
- runs from 112 to 132.

The data is written to /group/belle2/users/nbraun/results/first_data/git hash/global tag/. If you have already looked into it: I have fixed some bugs!

# FIRST RESULTS



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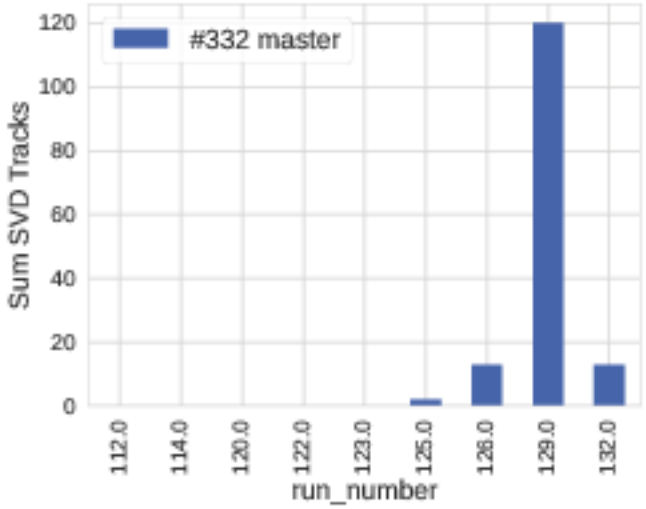

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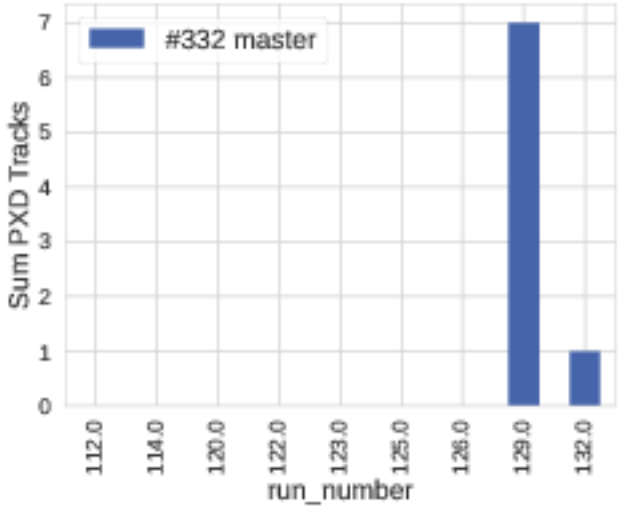

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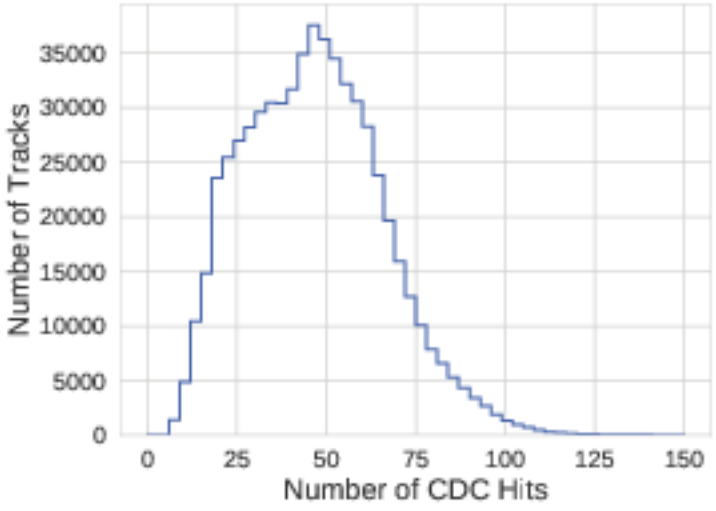
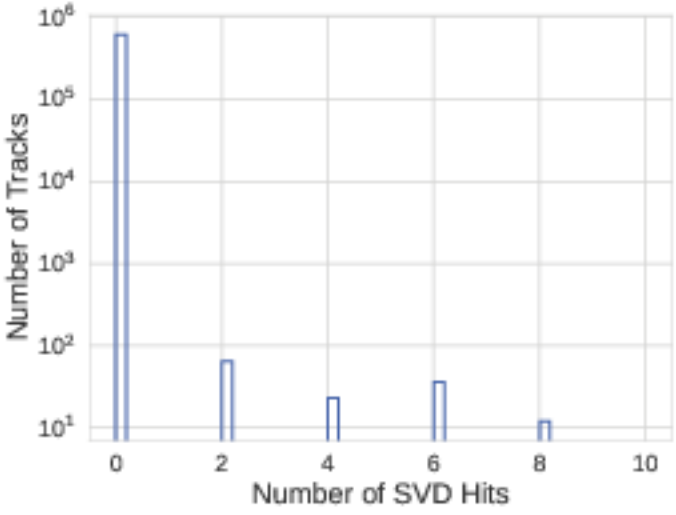


# FIRST RESULTS



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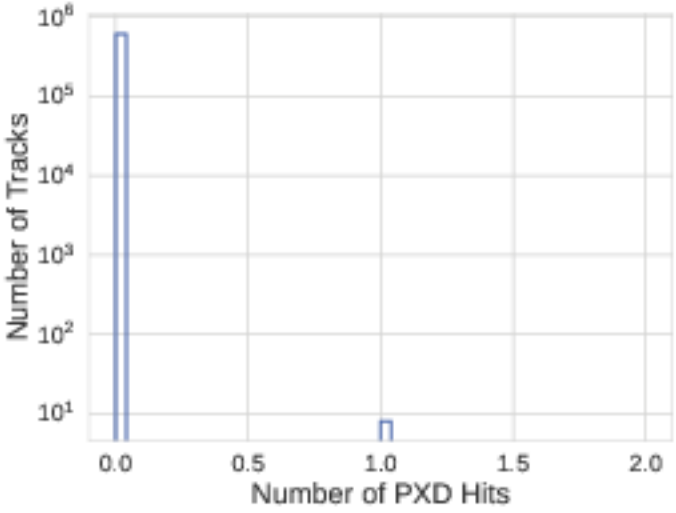

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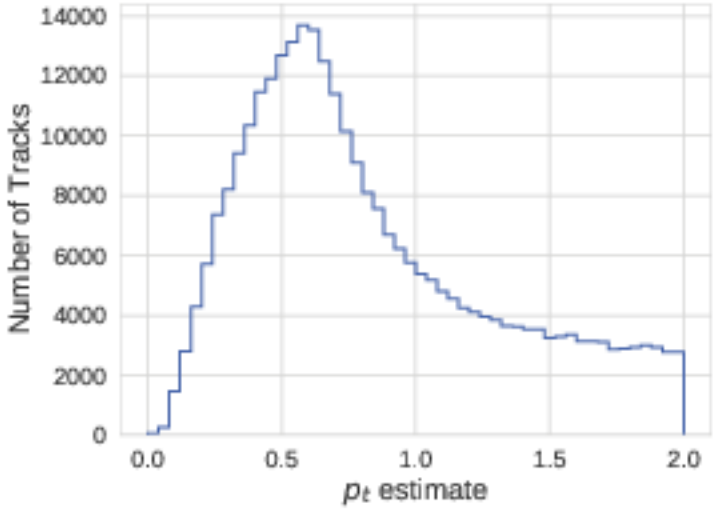

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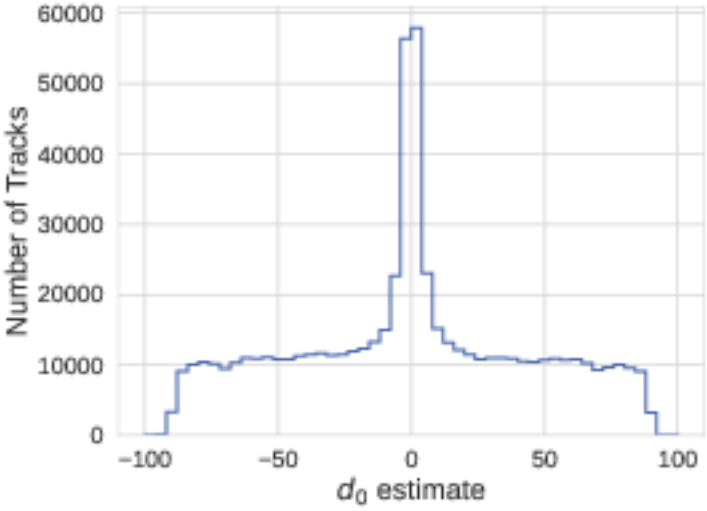

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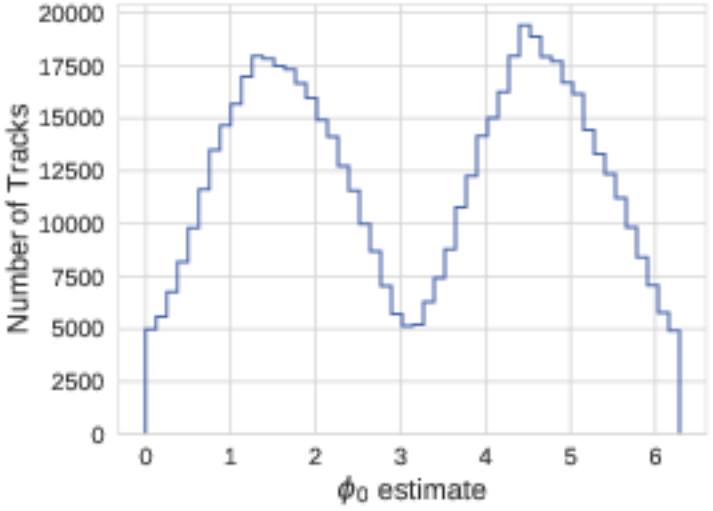

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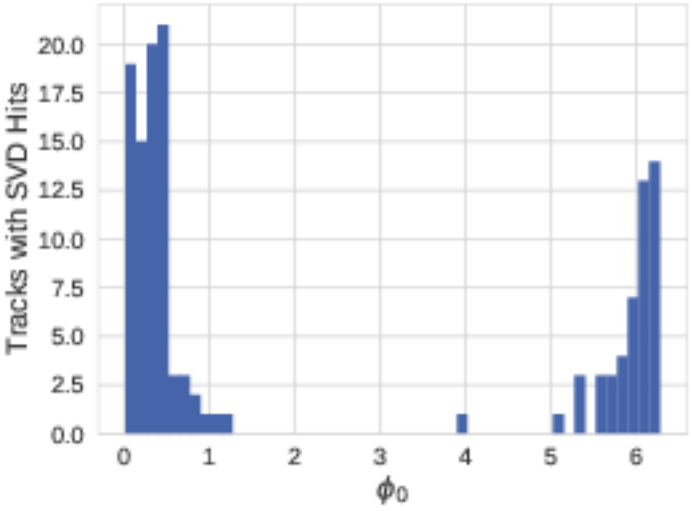

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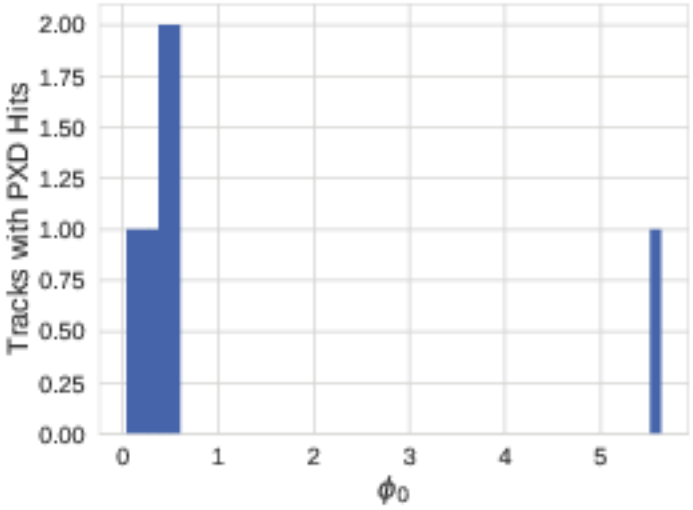

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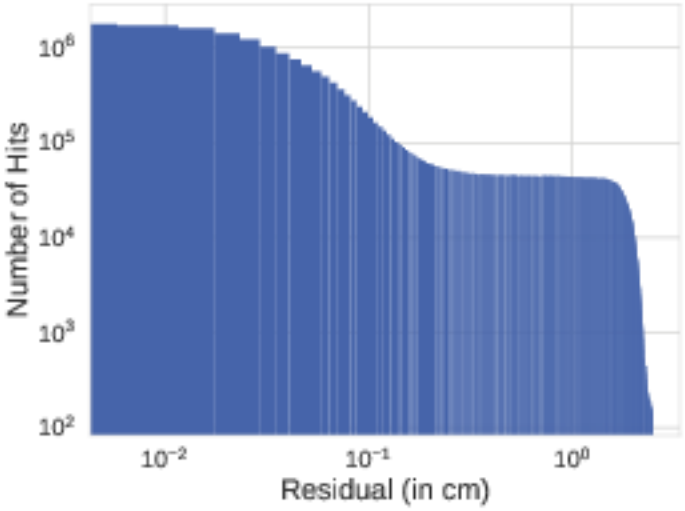

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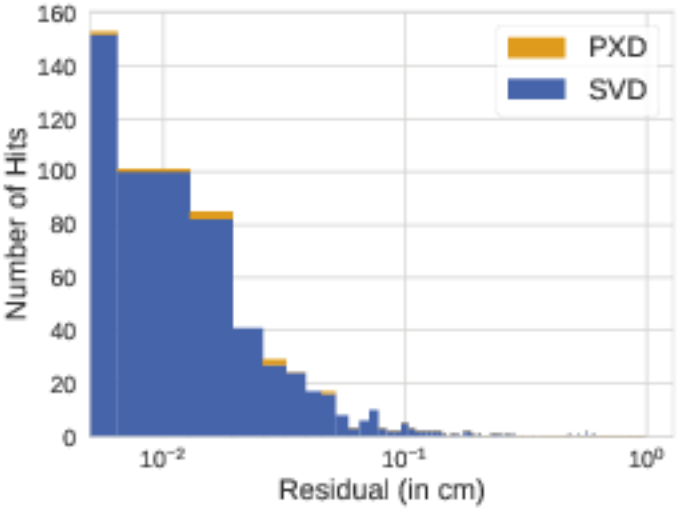

# WHAT NEXT?

Are there more things you want to see?

More ideas on things we can extract?

Unfortunately, we can not analyze/optimize with only that few tracks... we need a better trigger!