



Batch Exercise

Christoph Wissing (DESY), Ben Brueers

FH Sustainable Computing Workshop
January 2024

Slimming & Skimming

A very prominent use case

Slimming

- Condense big data formats to more compact ones
- Keep only objects/variables that are really needed
- In this example
 - CMS AOD format is about 300kB/evt (Run 1)
 - Out will only be a few variables per event (not enough to do physics actually!)

Skimming

- Select on events with certain properties
- Optional: Apply also calibrations

Repeating some Best Practices

Plan your processing

- One full run through the data can be resource intense
→ Get it right in the first attempt!
- Check with working group colleagues
 - Perhaps the results of the processing can be used also by others

Test your processing

- Understand what you are going to do!
- Do not blindly run something that you “inherited”
- Have small test runs and carefully validate your results

Why this exercise example is actually a bad one

- For the AOD dataset (**~300kB/evt**) there is already a nanoAOD (**a few kB/evt**) existing
- Somebody in CMS has done the processing already for you