

# Analysis preservation bootcamp

Mentors meeting #2

[Organizational Notes](#)

[Workshop Indico](#)

# Logistical Changes/ToDo

- People
  - 31 Participants
    - <https://indico.cern.ch/event/854880/registrations/participants>
  - Mentors:
    - 3 CMS Thea, Brendan, Stefan
    - 4 ATLAS Danika, Leonora, Giordon, Mason
      - Frank Berghaus → Danika MacDonnell [for Docker instruction]
    - (4 REANA): Tibor, Diego, Rokas, Marco
- Dinner [Tuesday evening]
  - If no other viable suggestions? → **La Meyrinoise** (easy for dietary restrictions/specifications)
- Open-ended Discussion [Monday evening]
  - Need a few phenomenologists who can come in person - **anybody have friends?**
- Discussion on Mattermost
  - [https://mattermost.web.cern.ch/signup\\_user\\_complete/?id=t9zkdocffbbozqcdy193myre8y](https://mattermost.web.cern.ch/signup_user_complete/?id=t9zkdocffbbozqcdy193myre8y)
  - Sign up and discuss

# Pre-workshop

H(tautau) Analysis  
[Done on own by participants prior to workshop?]

## Monday



Git(Lab) Essentials  
[Volunteers?]

Cont. Integration  
[Giordon]

Lunch

Cont. Integration  
[Giordon]

Catch-up Time

ATLAS  
[Lukas & Sam]

CMS  
[Savannah & Clemens]

Re-Ana Discussion with Theorists + Reception

## Tuesday



Docker  
[Danika]

Lunch

Catch-up Time

ATLAS  
[Lukas & Sam]

CMS  
[Savannah & Clemens]

Dinner  
@ TBD (send suggestions)

## Wednesday



CERN Re-Ana  
[Tibor]

Lunch

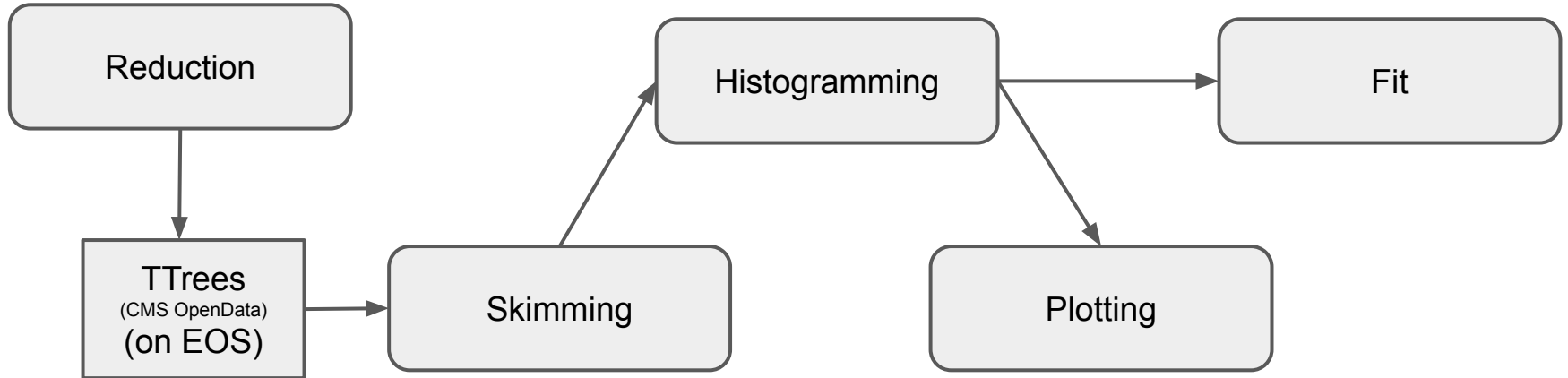
Catch-up Time

ATLAS  
[Lukas & Sam]

CMS  
[Savannah & Clemens]

# Material Changes/ToDo

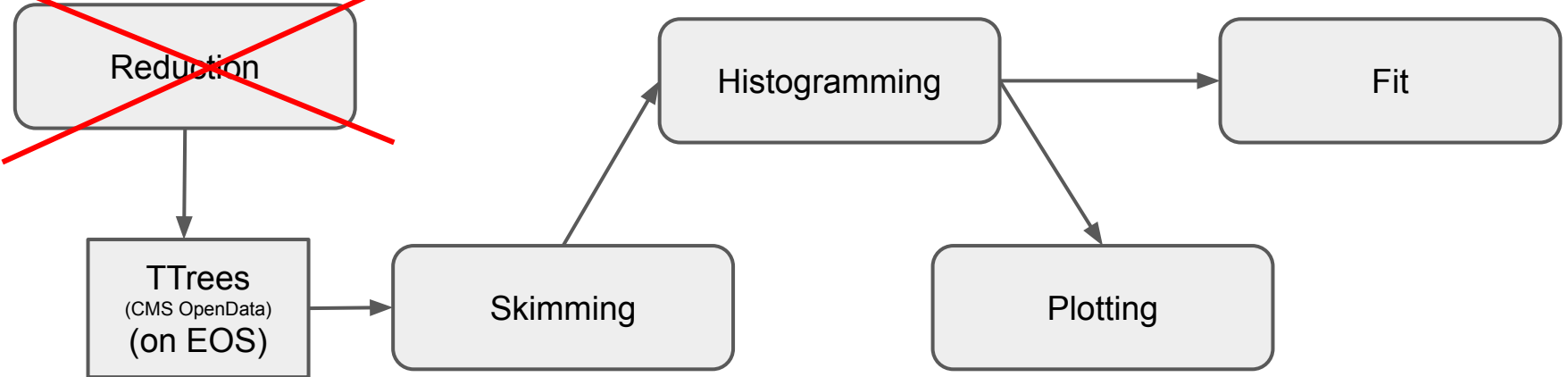
- Collection code here
  - <https://gitlab.cern.ch/awesome-workshop>
- Stefan has developed a starting “payload” (for common mornings)
  - <https://github.com/stwunsch/awesome-workshop-analysis>
  - Runs in approximately 5 minutes



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*Done ahead of time*

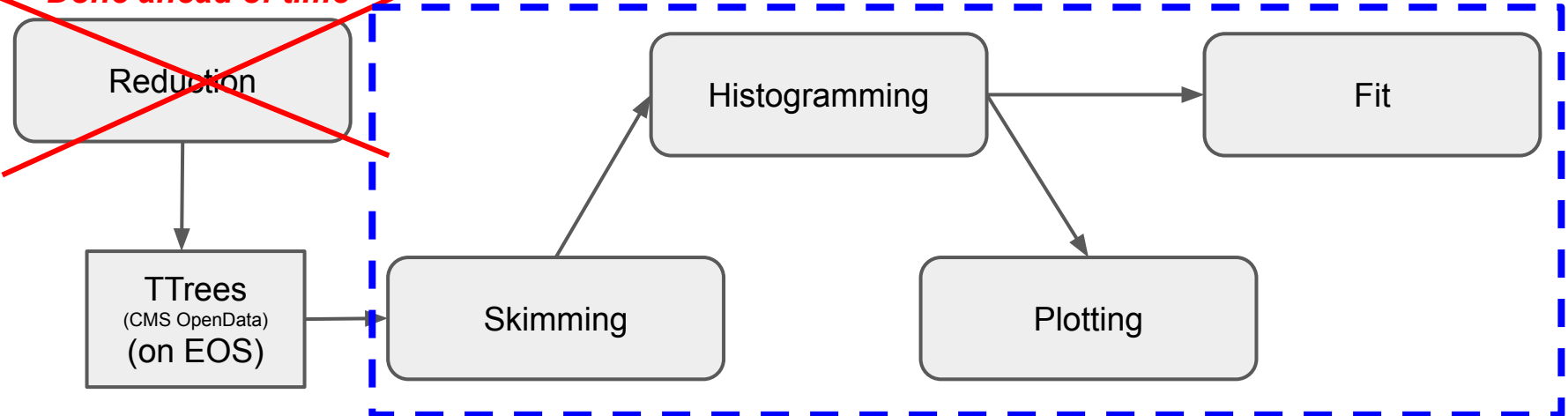


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*Done ahead of time*

*Given as tarball to participants*



# Current state of course material

- Reusing (and reworking) some material from the US-ATLAS Computing Bootcamp
  - GitLab CI/CD Module
    - Keep content/flow fixed but “overhaul” to use the CMS-OpenData payload instead of the [ATLAS specific \(i.e. DAOD-based\) payload](#)
  - Docker Module
    - Need to extend/integrate in the focused activity of building image for payload
- All material will be based on the Software Carpentry lesson template (<https://carpentries.github.io/lesson-example/index.html>) encapsulated in the workshop template (<https://github.com/carpentries/workshop-template>)
  - GitLab CI/CD: <https://kratsg.github.io/2019-08-19-usatlas-computing-bootcamp/>
  - Docker essentials: <https://matthewfeickert.github.io/intro-to-docker/>
  - To be integrated with payload: <https://github.com/stwunsch/awesome-workshop-analysis>
  - Eventually collect everything at <https://gitlab.cern.ch/awesome-workshop>
- The REANA team will prepare material for the morning of the third day

# How can you prepare?

- Work through the LBNL material ([2019-08-19-usatlas-computing-bootcamp/](#))
  - Particularly generic docker, gitlab ci/cd on the previous page
- Test the course material - we will let you know once things are fairly stable
  - You can already have a look at the material linked on the previous page now, but expect things to change
- Once stable, please provide feedback, create issues and pull requests
- The week before the bootcamp will be crucial for that
  - Please reserve some time (several hours) the week of 10th February for a walkthrough of the workshop morning materials



# The afternoon sessions

- The overall goal is that every participant has their analysis preserved at the end of the workshop
- The afternoon sessions will cover the experiment-specific details including pitfalls
- This also and in particular includes authentication

# The afternoon sessions - ATLAS

- Day 1: Setting up ATLAS EventLoop/Athena CI/CD
  - a. Include analysis repo organization (i.e. use of submodules)
- Day 2: ATLAS Docker Images (reuse Atlas S/W tutorial material)
  - a. Include building the AthAnalysis/AnalysisBase release images from scratch
- Day 3: RECAST on REANA (reuse RECAST tutorial material)
  - a. Basically this again : <https://indico.cern.ch/event/852288/>

# The afternoon sessions - CMS

- Day 1: Setting up CMSSW CI/CD
  - Compiling and running CMSSW inside GitLab
  - Accessing EOS for test jobs
  - Streaming via XrootD (grid-proxy authentication)
- Day 2: Specifics of CMS Docker images:
  - Full CMSSW release containers
  - Mounting CVMFS inside the container
  - Making your container available via [unpacked.cern.ch](https://unpacked.cern.ch)
- Day 3: Run tests and more complicated workloads using REANA