DAS LLP searches exercise

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toolkit for
efficient
analysis
tea

Overall plan

- Re-use as much as possible our t$\bar{t}$+ALPs analysis.

- Use `tea` for ntuples processing and analysis.

- Discuss some general topics in the meantime:
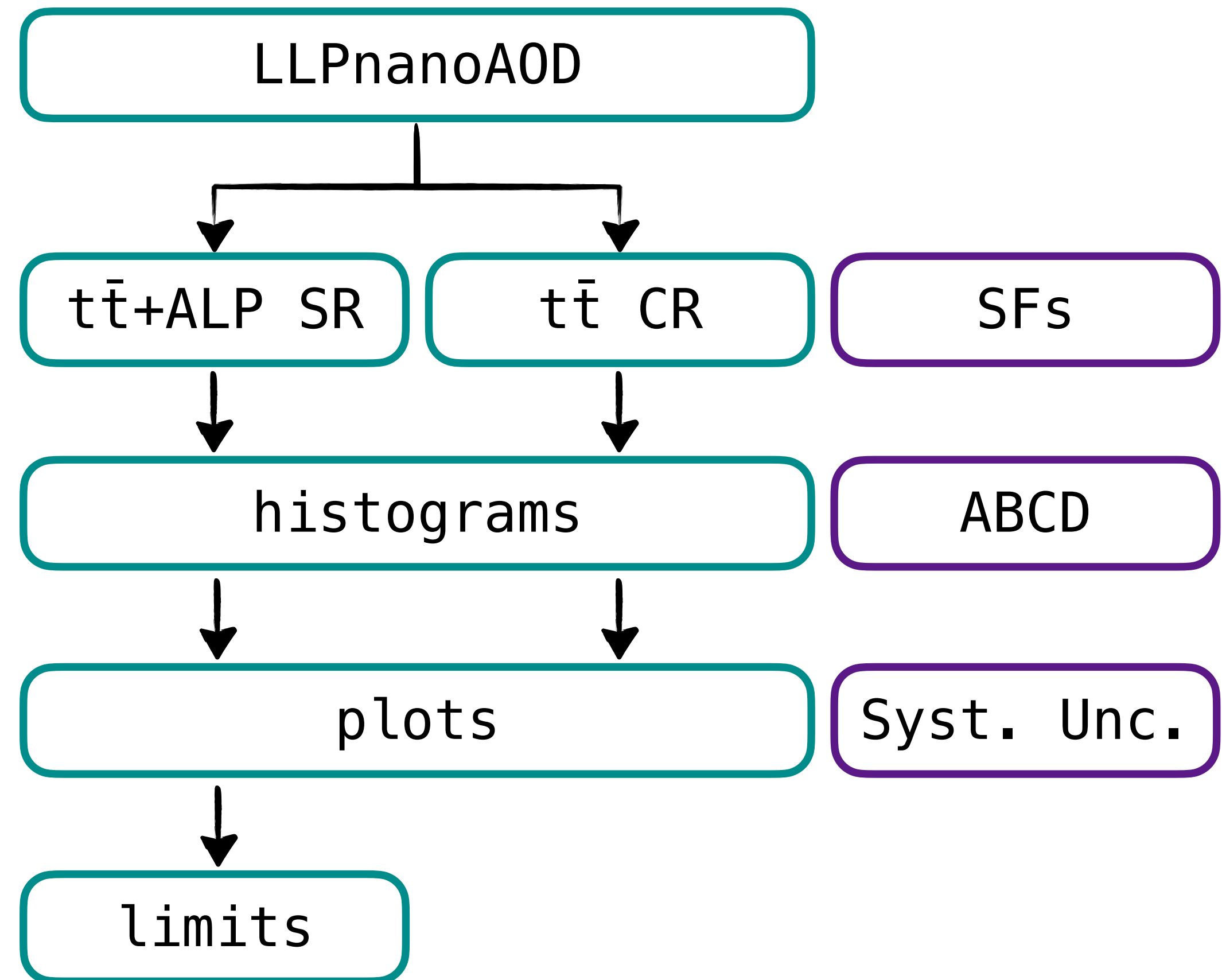 - Git repos.
  - Storage systems.
  - …

Baseline plan

- Skimming.
- Submission to the grid.
- Histogramming & Plotting.
- Data-MC comparison in the CR.
- Limits with MC background prediction.

Extended plan

Pick some of these if there's enough time:

- ABCD background estimation.
- Scale Factors to improve agreement in t$\bar{t}$ CR.
- Propagation of systematics.

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LLPnanoAOD
```

```
t̄t+ALP SR        t̄t CR         SFs
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histograms                    ABCD
```

```
plots                    Syst. Unc.
```

```
limits
```

Questions

- Which of the general topics will be covered in other classes?

- Are they going to use lxplus, NAF, or something else?

- How much time will we have?

- How many participants? What's their level?

- Which room?

- Will someone help me run the exercise?

- Any recommendations for the setup? Containers? Rely on packages installed on NAF? Use Conda environments?

- Can we use a little bit of real data for the CR?

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