

SBI Closeout

Jay and Nick



Thank you!

Thank you for attending and contributing to the discussion!

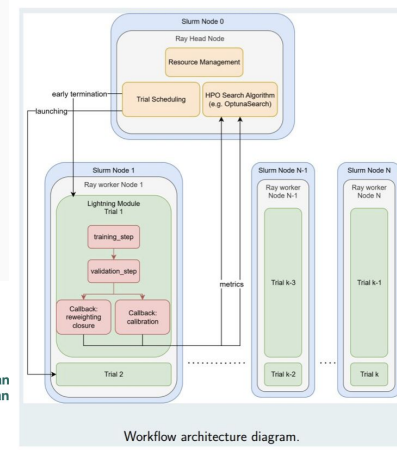
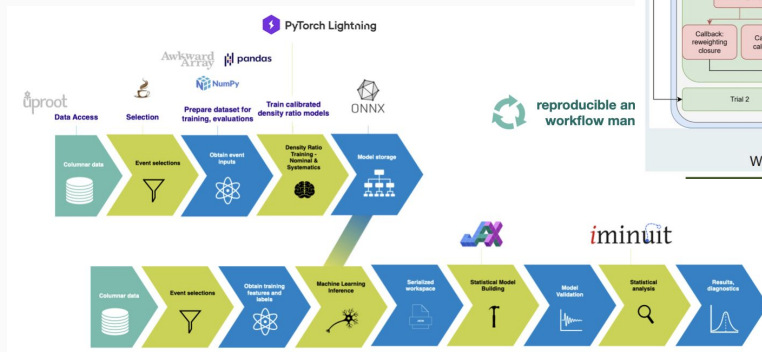
Huge thanks to Eddie for helping with the logistics of this workshop and Matthew helping capture discussions in the live notes!

Takeaways as we see it

- SBI is cool and more accessible than ever!
- We have success stories learning:
 - Flows for density estimation
 - Classifiers for density ratios
- Many different types of SBI we saw in this workshop:
 - Binned semi-parameterized observable
 - Discrete and sufficient summary optimal observables
 - Fully parameterized unbinned likelihood ratio fits
- We have had good success in applying SBI to LHC experiments too. Some work to do for uncertainty quantification
 - We have approximate models inspired by HistFactory - successfully applied to the ATLAS experiment.
 - More robust modeling - refinable modeling and HistFactory v2.

Takeaways as we see it

We have new developments going on in tooling ecosystem as well! One of the goals moving forward would be to harmonize efforts and work towards common goals.



What do you think?

This is a blueprint meeting, so one of the goals is to capture community consensus on the challenges and opportunities for tooling in this area.

Let's spend a little time interactively working with this whiteboard and see where we get.

Feedback Matrix

What is SBI for you?

What language do you find confusing?

What kind of tools are you looking for?

What would you like to see in the whitepaper?

<https://www.whiteboard.team/app/board/1Qlu9keM>

More SBI

There will be more workshops focused on this topic

Closed nSBI4ATLAS workshop on May 19-21:

<https://indico.cern.ch/event/1656822/overview>

LPC EFT workshop (unannounced, but June 1-2)