

# SESSION I: ACCURACY OF PARTON SHOWERS

**Organizers:** S. Ferrario Ravasio, P. F. Monni, S. Prestel,  
E. Re, P. Richardson

## Taming the accuracy of Event Generators

29<sup>th</sup> June 2020

Talks:

- 1 **F. Dreyer:** Parton showers beyond LL accuracy
- 2 **S. Ferrario R.:** Recoil schemes in angular ordered PS
- 3 **J. Holguin:** Building a consistent PS

## (Possible) points for discussion

- criteria and framework to test parton shower accuracy
- how to define observables that can be used to test the accuracy (i.e. how to test at experiments)
- Can we keep the advantages of an angular ordered shower with a dipole shower formulation (with a solid phase space factorization)
- Difference between recoil schemes (global vs local) (e.g. the ISR recoil in Pythia that must be changed to deal with Drell-Yan processes ...)
- How to extend the studies done for FSR to the ISR case.
- How much “wobble room” can dipole showers have whilst retaining NLL leading colour accuracy? Can we parametrize it and have an handle on the errors?
- Other constraints? E.g. the not-log enhanced parts of phase space.

PS: feel free to propose more topics!!