

Introduction

Leif Gellersen

Supervisors: Leif Lönnblad & Malin Sjö Dahl

Collaborating with Stefan Prestel
on Improving Parton Showers

Lund University

leif.gellersen@thep.lu.se

April 12th, 2018



About Me

- Bachelor and Master in Göttingen, Germany
- Summerstudent at CERN in 2016 \Rightarrow interest in MC event generators
- Now: PhD in Lund, improving parton showers

First Project: NLO Matching & Merging Tune

- Many parameters in MC event generators
- Tune parameters to best describe data
- Improved predictions by combining PS with ME: matching & merging
- Goal: use highest possible perturbative accuracy when generating events
- Tune parameters for this more precise description (esp. α_s in PS, using e^+e^- data)

Thanks!