Introduction

Fredrik Hülphers
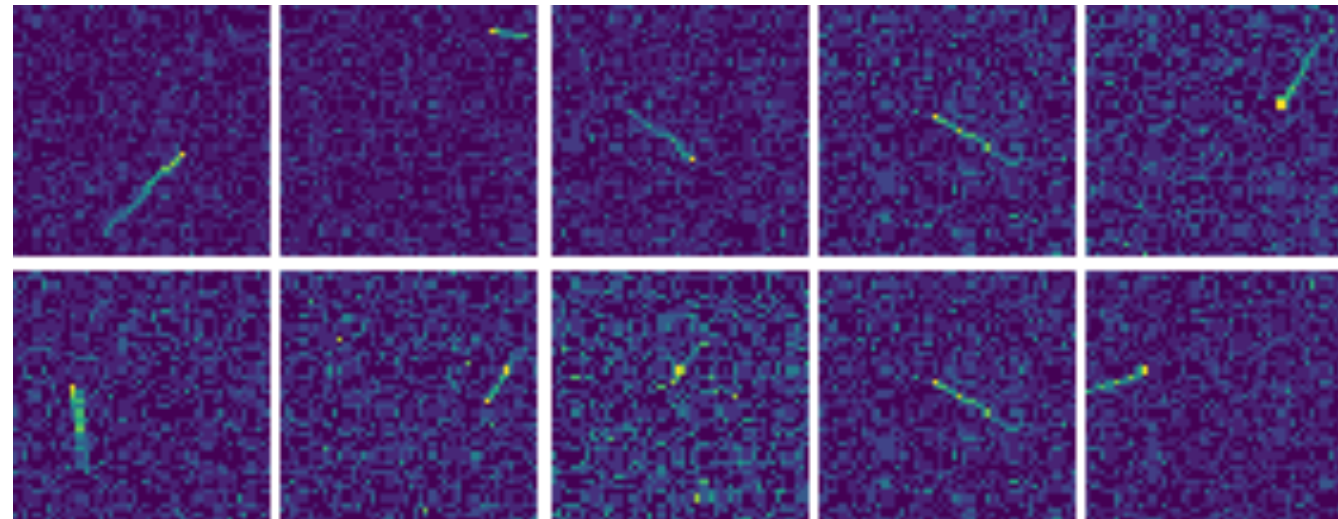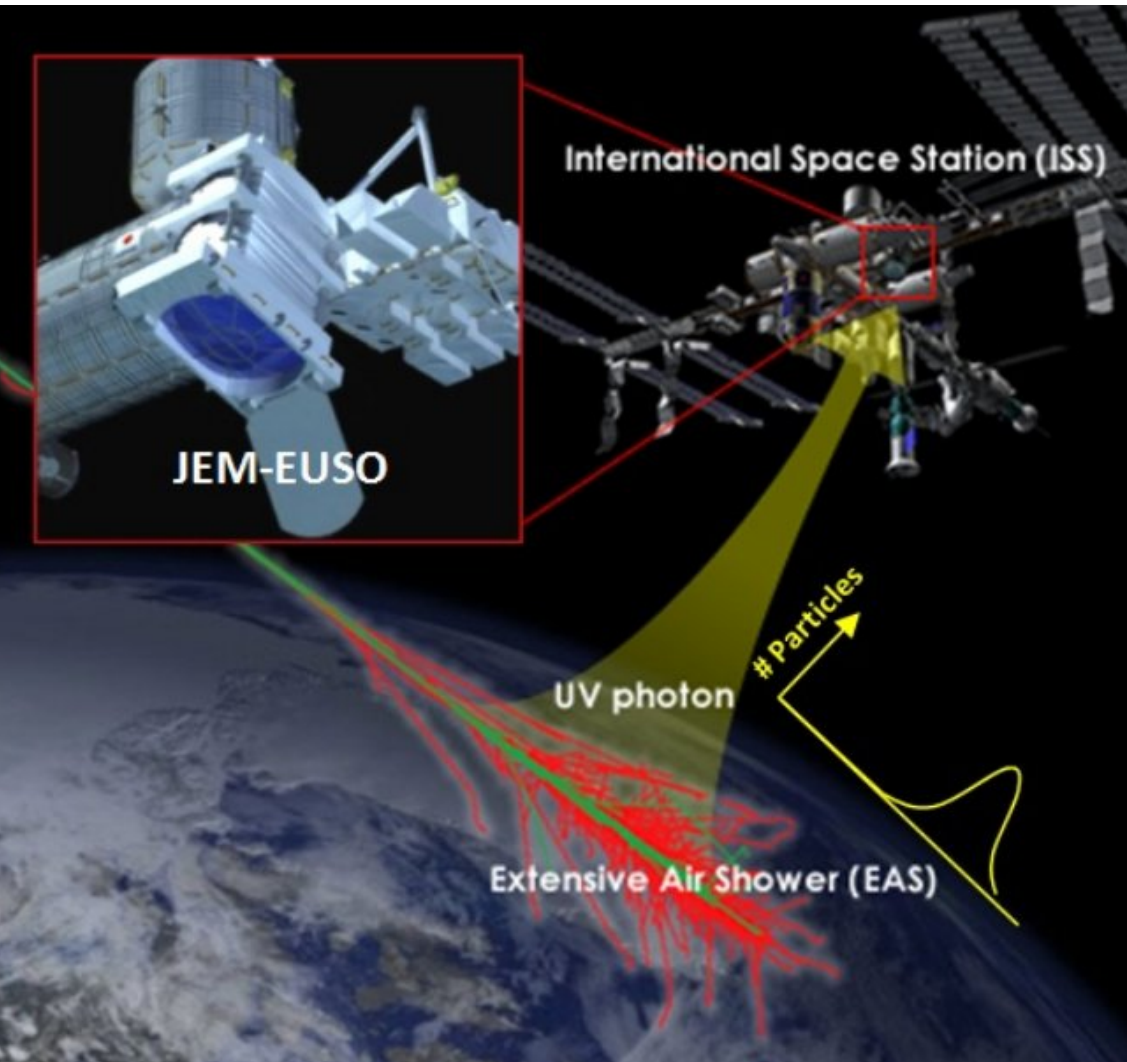
September 17, 2020

Background

- 25 years old

- From Stockholm, Sweden

- 2015 – present:
  Degree program in **Engineering Physics**
  KTH Royal Institute of Technology (Stockholm)
  BSc in 2018

- 2018 – present:
  Master program in **Mathematics in Data Science**
  Technical University of Munich
  Double degree program

Previous projects

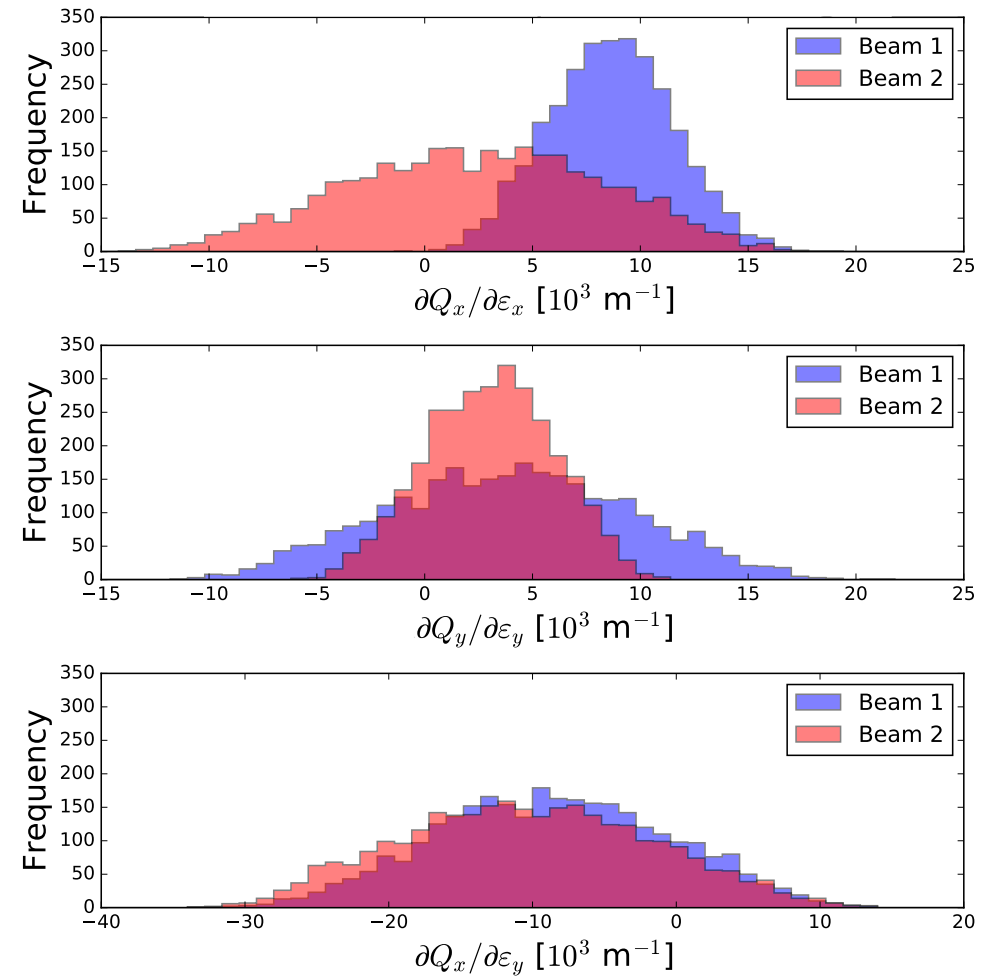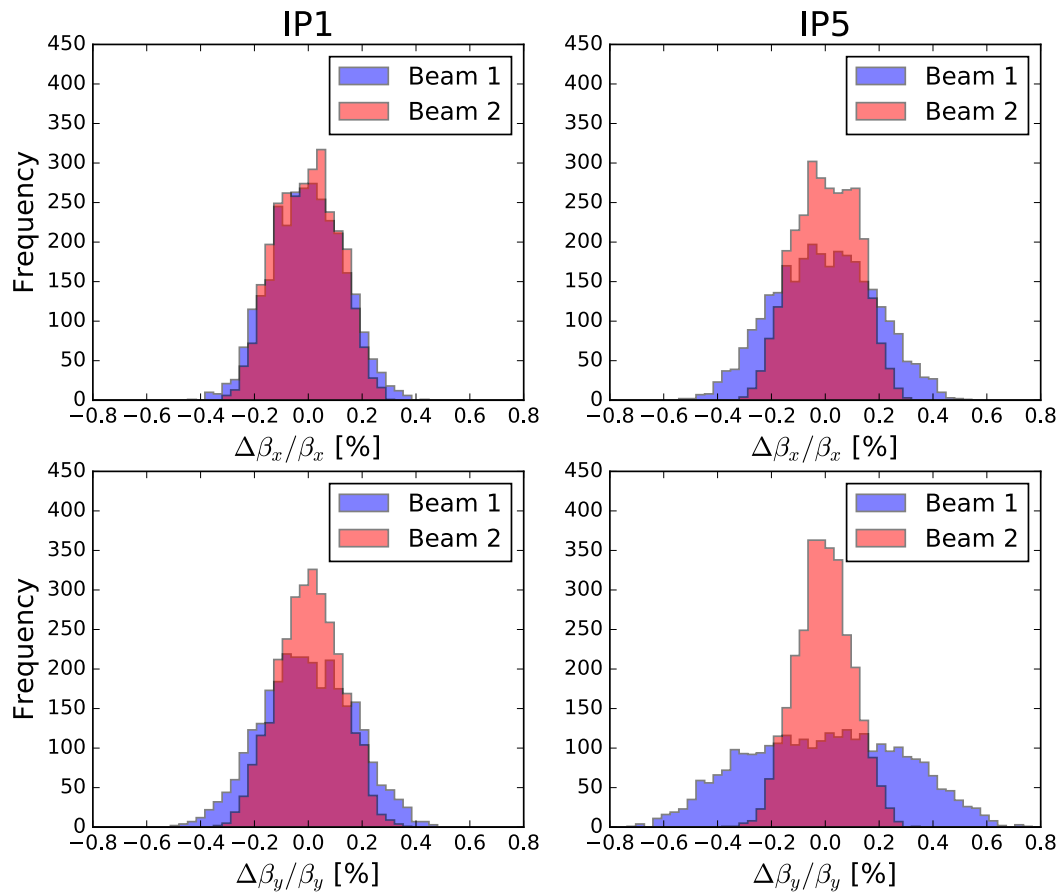# 2018: BSc project, KTH Royal Institute of Technology
Deep learning for classification of ultra high energy cosmic ray tracks as seen from a detector on the ISS

2019: CERN Summer Student Programme (BE-ABP-HSS)
β-beating and amplitude detuning from misaligned MCX in the LHC and HL-LHC.   Supervisor: Rogelio Tomas

Monte Carlo simulations using MAD-X

Technical student project (1 year)

- **Post-mortem analysis of beam losses during high-energy beam dumps**
- Supervisor: Christoph Wiesner
- Develop an automated analysis tool for screening of beam data
- Primarily using a physics model-based approach
- But also try some machine learning techniques
- In collaboration with the Computer Vision Group at TUM, as part of my master thesis

Interests and hobbies

- Running (mostly 5K)
- Strength training
- Hiking
- Astronomy and cosmology
- Geography
- Exploring the world in Google Earth