

Alina Isobel Hagan



Education:

2020-2024 PhD, Lancaster University, ATLAS Experiment.

- Particle Physics, Supervised by Vato Kartvelishvili.
- Analysis Contact for Extracting Gluon TMDs from $J/\psi + \gamma$ in pp .

2015-2020 MSc, University of Glasgow.

- First Class Masters in Physics.
- Masters project;
 - Measurement of b -jet substructure observables.
 - Exploration of novel overlap removal methods and Soft-Drop jet cleaning.

Experience:

2019 University of Glasgow.

- Nuclear and Hadron Physics research group.
- Supervised by Dr Simon Gardner.
- Applying GNNs for shower recognition at the Crystal Ball detector.
 - Utilising Graph Neural Network layers from 1902.07987 and a YOLO-style approach to identify and separate and reconstruct overlapping showers.

Talks:

2023 Quarkonia as Tools 2023

- Inclusive quarkonium production - experimental overview.

2022 ATLAS UK Annual Meeting 2022

- Precision physics with quarkonia.

2022 Quarkonia as Tools 2022

- Quarkonium and TMDs in pp - past and future measurements.

Academic Interests:

Quarkonium Physics.

- J/ψ , Di- J/ψ , $J/\psi + \gamma$, Υ studies.
- TMD extraction.

Projects:

2022-NOW terminal_rendering

- A simplified implementation of a rendering engine, with minimal dependencies, designed to work on any unicode compatible terminal.

2022-NOW FINITE STATE

- A science fiction styled bridge operation game with an emphasis on complexity, technical knowledge of your craft, and operating procedure

Other:

Skills C++, ROOT, CMake, Vim, Git, LaTeX,

Personal Information Age - 25, Gender - Female, Nationality - Scottish.

Hobbies Photography, running, hobby programming, mechanical keyboards, video games.