

Alina Isobel Hagan.



Education.

2020-2024 PhD, Lancaster University, ATLAS Experiment.

- Particle Physics.
- Supervised by Vato Kartvelishvili.
- 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 isolation 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 recently published paper 1902.07987
 - Use a YOLO-style approach for image recognition to identify and separate and reconstruct overlapping showers.

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

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

Other Interests.

- Photography, running, hobby programming, mechanical keyboards.