

Alan MORNINGSTAR

Alan is from Canada. He is now entering year 4 of a combined Math & Physics undergraduate degree at the McMaster University and he is also affiliated with the University of Toronto as a summer research student for the Toronto ATLAS group.

During his summer at CERN Alan has been working in the Physics Department in the ATLAS Toronto afterGroup focusing on two projects:

- Proof of concept that deep neural networks can circumvent the need to manually construct high level physics observables by “automatically” discovering high level, abstract, non linear features in data. Use this to classify VBF Higgs events in the $H \rightarrow ZZ^* \rightarrow 4l$ channel
- Total ionizing dose tests on the radiation hard abc130 chip which will eventually be used in the ATLAS semiconductor tracker upgrade.

After his internship at CERN his professional goals will be to finish his undergraduate studies, pursue a PhD in Physics and afterwards find an interesting way to spend a career.