

MSc Research Interest for Miles Kidson

Over the year of 2022 I have been working with iThemba LABS in collaboration with ALICE at CERN, looking at some of the detectors that were upgraded for the latest run of data taking at the LHC. In the process I have learned a lot about the practical side of experimental particle physics, such as how huge amounts of data are handled, processed, and analysed, how large scale detector systems work together, and more particularly how the new analysis system works at ALICE.

I am interested in continuing working within the LHC and CERN world, preferably within the ALICE group. There is more a lot more work to be done with regards to the Muon Forward Tracker and Inner Tracking System to fully take advantage of the increased energy and luminosity of Run 3 and I am interested in working with iThemba Labs on that topic.

I have also previously worked in the neutron lab at UCT, with Dr. Tanya Hutton, on pulse shape discrimination in neutron detectors. That topic interests me greatly as the world of digital pulse shape discrimination is growing rapidly so there is a lot of room to try new techniques. I would be interested in exploring that area of research as well.