



Certificate

This is to certify that

Liam Alan Dacus Becker

University of Washington, Seattle

in the period

from June 26, 2024 to September 7, 2024

at the

Karlsruhe Institute of Technology

has participated for a full-time internship in the department
“High-Energy Universe” of the Institute for Astroparticle Physics

The following topics were covered during the internship:

- Introduction to cosmic ray physics, air showers and radio detection
- Introduction to the GRAND neutrino and cosmic ray observatory
- Study of radiation energy differences between GRAND@Auger and GrandProto300 site
- Comparison of fluence maps between two frequency bands for both sites
- Study of significance of polarisation components for determination of radiation energy
- Data analysis with Python and working with remote servers/SSH connections

Finally, some of the results were presented in a group meeting.

Karlsruhe, den 30.06.2024

Dr. Andreas Haungs