



Postdoctoral Position on DEAP-3600, DarkSide-20k and ARGO

September 12, 2022

The Department of Physics at Carleton University has an immediate opening for a postdoctoral researcher in experimental particle astrophysics focusing on searches for dark matter with argon, with potential projects including analysis of DEAP-3600 data, development of the DarkSide-20k dark matter experiment at LNGS in Italy, and on R&D for the future ARGO experiment. The position is based at Carleton University in Ottawa and may involve travel to SNOLAB in Sudbury (www.snolab.ca), the LNGS underground laboratory in Italy (www.lngs.infn.it), or the site of an underground argon extraction facility in Colorado, USA. Successful candidates will join the Carleton research and technical team, described at physics.carleton.ca/apex. The Carleton group is active in physics analysis and has responsibility for developing and deploying ultralow-background coatings of conductive polymer and of wavelength shifter on the inner surfaces of the Darkside-20k TPC and for ultrahigh-purity gas analysis during extraction of low-radioactivity argon from an underground source in Colorado, USA. The Carleton group also performs R&D toward future experiments, including the future ARGO dark matter search, and has substantial experimental facilities for prototyping noble liquid detectors, including support for cryogenic detector development, photon readout, ultralow background techniques, optical characterization, and surface profiling. Potential projects on ARGO include prototyping SiPM-based liquid argon detectors for background rejection and detector simulations.

Candidates should have a Ph.D. or equivalent degree in experimental particle astrophysics, nuclear or particle physics, or in closely related fields. The original appointments will be for two years, with the possibility of renewal. The salary range is \$55,000-\$58,000 commensurate with qualifications and experience.

Applicants must include a detailed CV, a brief statement of research interests, and arrange to have at least three letters of reference forwarded to:

Prof. Mark Boulay
Professor and Tier 1 Canada Research Chair
DEAP Project Director
c/o Bin Wang
binwang@cunet.carleton.ca

Applications will be accepted until the positions are filled. Carleton University is an equal opportunity employer and strongly encourages all qualified persons to apply. Carleton University thanks all who express an interest and advises that only those selected for an interview will be contacted.