Abstract

For more than two decades UK astrophysicists have been operating experiments to search for Dark Matter 1100m below ground in a purpose-built 'lowbackground' facility at Boulby potash mine in the North East of England. This facility - the Boulby Underground Laboratory - is one of just a few places in the world suited to hosting these and other science projects requiring a 'quiet environment', free of interference from natural background radiation. The race to find Dark Matter continues and Boulby currently hosts internationally important projects dedicated to this cause. In the meantime the range of science projects looking for the special properties of deep underground facilities is growing and projects currently operating at Boulby range from astro & particle physics to studies of geology and geophysics, environmental radioactivity & radio-dating, Carbon Capture and Storage (CCS) and studies of life on Earth (and beyond!). The team at Boulby have recently completed the construction of a new underground laboratory to enable this work and more to continue for decades to come. This talk will give an overview of the Boulby Underground Laboratory, the new laboratory construction, the science currently supported and plans for science at Boulby in the future.