

# IceCube Upgrade optical module characterisation

In 2025/26 hundreds of new optical modules, which use photomultiplier tubes, will be deployed in the deep ice at the South Pole to detect Cherenkov radiation produced by high energy neutrinos. At DESY we are building and testing these modules to ensure they meet the desired performance requirements. This project will involve characterising the response of modules in realistic (sub-zero) temperatures and using external light sources (e.g. pulsed laser) to determine essential optical performance parameters.

## Field

C2: Instrumentation for Astroparticle Physics

## DESY Place

Zeuthen

## DESY Division

AP

## DESY Group

IceCube/Neutrino

## Special Qualifications:

experience with python programming, interest in hardware calibration

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