GWADW2021 Gravitational Wave Advanced Detector Workshop



Contribution ID: 151 Type: talk

Glasgow 10m facility

Monday, 17 May 2021 12:50 (10 minutes)

In this talk we present the plans in Glasgow to upgrade or 10m interferometer into a cryogenic facility. The facility will utilise a single 10m reference cavity based on suspended fused silica optics, and a pair of Leidon cryocoolers for a short cryogenic reference cavity. The facility is aimed to be a fast turnaround system with studies focusing on ice growth on optics, monitoring cryogenic violin mode ringdowns and characterising fundamental noise sources in silicon test masses, monolithic silicon suspensions, and cryogenic coatings.

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Session Classification: Recorded talks: Third Generation R&D Facilities

Track Classification: Next detectors: R&D facilities and plans