



Contribution ID: 119

Type: **Oral Presentations**

## Production line and quality assurance of mPMT photosensors for WCTE.

*Tuesday, 5 September 2023 12:00 (20 minutes)*

The Water Cherenkov Test Experiment (WCTE) is a CERN experiment that aims to test several technologies and techniques related to water Cherenkov detectors. It will consist of approximately 120 multi-PMT photosensors placed in a water tank (~3.8 m diameter, ~3.6 m height, total water mass ~41 tonnes). Each multi-PMT consists of nineteen 3" PMTs and the associated front-end electronics enclosed in a water-tight pressure vessel. A similar system will be used in the Intermediate Water Cherenkov Detector (IWCD) and, with some modifications, in the far detector of the Hyper-Kamiokande experiment.

This talk briefly covers the production process of the multi-PMT system along with the adopted procedures for the assembly and quality assurance control and tools. Also, we will present the methods used to evaluate the performance of the electronics and optical parameters of the multi-PMTs. Finally, the quality assurance data collected from a sample module will be discussed.

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**Session Classification:** B2