11th International Workshop on Ring Imaging Cherenkov Detectors (RICH2022)



Contribution ID: 39

Type: presentation

Development of an integrated housing for SIPM for future RICH photon-detectors

Thursday 15 September 2022 10:15 (25 minutes)

The housing of the sensors for future RICH detectors is a complex task, regardless of the sensor choice, due the many requirements. In order to save on the required resources and simplify the design, different functions should be possibly integrated all together, including, for SIPM-like sensors, some sort of active cooling. A local cooling strategy is being investigated first, to cool down a region as small as possible around the sensor only, exploiting the industrial technologies existing today for cooling of solid state devices by many applications. The results of test conducted so far will be presented together the current conceptual design, tests and prototyping.

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Session Classification: Technological aspects and applications of Cherenkov detectors

Track Classification: Technological aspects and applications