



Contribution ID: 29 Type: **Poster presentation (90 second oral summary, 90 minute poster session & free presentation times over 3x 40m coffee breaks)**

High-density and low-background Silicon packages for kilogram skipper-CCD instruments

Tuesday, 12 March 2024 14:30 (1h 30m)

The next generation of experiments for rare-event searches based on skipper Charge Coupled Devices (skipper-CCDs) will bring new challenges for the detector packaging and readout. Scaling the active mass and simultaneously reducing the experimental backgrounds in two orders of magnitude will require a novel high-density Silicon-based package, that must be massively produced and stored. In this work, we present the design, first production, and testing of a 16-channel Silicon package, along with the outlook for the next steps towards producing 1500 wafers that will add up to a 10 kg skipper-CCD detector.

contribution subject matter

CCD sensors

Keywords for your contribution subject matter (this will assist SOC in accurately characterizing your contribution)

Skipper-CCD, package, electronics

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Session Classification: Poster Session

Track Classification: Major ISPA Workshop Tracks: New Detector Technologies