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## Progresses towards a Silicon-Tungsten ECAL for Higgs Factory Detectors

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One way to achieve instrumental precision at future Higgs factories, where multi-jets events represent the majority of the final states, is to conceive detectors based on the Particle Flow approach. This is the assumption followed by ILD(LC), SiD, CLICdet, ILD(CC), CLD and the baseline detectors concepts for the ILC, CLIC, FCC and CEPC colliders.

The Particle Flow approach requiring to disentangle the individual calorimetric contributions from charged and neutral particles, a highly granular calorimeter system is mandatory.

The SiW-ECAL is the most advanced design to date; it features large Silicon diodes as sensors, combined with Tungsten absorbers for compactness (and easier particle separation), with voxels of  $\sim 5 \times 5 \times 5 \text{ mm}^3$ , for a total number of channel close to 70M.

Its design, though from the start to include scalability for quality insurance and construction, tackles many technical challenges on relating to instrumentation, thermal dissipation, readout, etc. The design has been progressively refined for the ILD concept at ILC, and is now being ported for the FCC-ee and CEPC.

We will present the recent progress on the DRD6 prototype building and testing, with a new version on the active layers and hybridisation procedure. The scaling of the readout electronics required for the circular colliders, and a possible solution for an integrated cooling system will be exposed. Finally, ongoing work on the inclusion of a precision timing and future plans will be sketched.

### Secondary track

**Author:** BOUDRY, Vincent (LLR - CNRS, École polytechnique/IPP Paris)

**Presenter:** BOUDRY, Vincent (LLR - CNRS, École polytechnique/IPP Paris)

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