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A Silicon-Tungsten ECAL for Higgs Factory Detectors

A highly granular electromagnetic calorimeter, based on silicon sensors associated with tungsten absorbers (SiW-ECAL), is proposed for the Higgs-Factory detectors, based on Particle Flow approach such as the ILD, the SiD, CEPC baseline, or the CLD. The concept has been developed considering all the technical, instrumental, and construction constraints for linear colliders, backed-up on tested small prototypes.
Work has started on the adaptation to circular collider operations, on the evaluation of adding a timing dimension or dedicated layers, and on reaching ultra-granularity using MAPS as sensors.

Authors: BOUDRY, Vincent (LLR, CNRS, École polytechnique, Institut Polytechnique de Paris); POESCHL, Roman (Université Paris-Saclay (FR))

Co-authors: BRIENT, Jean-Claude (Centre National de la Recherche Scientifique (FR)); DIEHL, Leena (CERN); IRLES, Adrian (IFIC CSIC/UV); LACOUR, Didier (LPNHE-Paris CNRS/IN2P3); SICKING, Eva (CERN); SUEHARA, Taikan (ICEPP, The University of Tokyo (JP)); Dr DE LA TAILLE, Christophe (OMEGA (FR)); VIDEAU, Henri (Laboratoire Leprince-Ringuet (LLR)-Ecole Polytechnique); ZERWAS, Dirk (Université Paris-Saclay (FR)); DAUNCEY, Paul (Imperial College (GB)); Dr MAGNAN, Anne-Marie (Imperial College (GB)); ZHANG, Jianjie (Argonne National Laboratory); PARAMONOV, Alexander (Argonne National Laboratory (US)); BRAU, Jim (University of Oregon (US)); VERNIERI, Caterina (SLAC National Accelerator Laboratory (US))