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# Detector design at an asymmetric linear Higgs factory

A future Higgs factory using a mixture of plasma wake-field acceleration for electrons and radio-frequency acceleration for positrons has recently been proposed. With this Hybrid Asymmetric Linear Higgs Factory (HALHF), a much shorter and therefore cheaper collider could be built.
Such facility would feature energy-asymmetric beams, leading to forward-boosted collisions. We started looking at how to design a detector accommodating such constrains. The next step, in which you will be involved, is to reproduce analysis benchmarks and compare the performance of this facility to other advanced proposal such as the ILC.

## Group

FH/FTX/SLB

## Project Category

B1. Physics Data Analysis and Performance (software-oriented)

## Special Qualifications

Basic knowledge of C++ or Python

**Primary authors:** LAUDRAIN, Antoine (DESY (Deutsches Elektronen Synchrotron)); BERGGREN, Carl Mikael (FTX (FTX Fachgruppe SLB)); LIST, Jenny (FTX (FTX-SLB))