

Status of HALHF - a concept for a hybrid asymmetric linear Higgs factory

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The HALHF concept utilises beam-driven plasma-wakefield acceleration to accelerate electrons to very high energy and collide them with much lower-energy positrons accelerated in a conventional RF linac. This idea, which avoids difficulties in the plasma acceleration of positrons, has been used to design a Higgs factory that is much smaller, cheaper and greener than any other so far conceived. The talk will outline the original design, discuss the challenges of doing physics with a significantly boosted final state and describe a number of possible energy and facility upgrades. Finally the current status of the design will be given, including possible evolution in several parameters and next steps towards a more optimised design that can form the basis for a pre-Conceptual Design Report.

Alternate track

I read the instructions above

Yes

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