



Contribution ID: 124

Type: **Poster Presentation**

Prospects for experiments based on proton-driven electron beams

The prospects for particle-physics experiments based on an AWAKE-like electron acceleration scheme will be reviewed. These include high energy electron test beams, searches for very weakly interacting particles in fixed target experiments as well as electron-proton and electron-ion colliders covering a wide range of energies up to a very high energy electron-proton (VHEeP) collider with nominal centre-of-mass energy of 9 TeV, a factor of 30 higher than HERA. First estimates of achievable beam energy, repetition rates and luminosities will be presented. The physics prospects allowed by these parameters will then be discussed.

Experimental Collaboration

AWAKE

Author: Mr CALDWELL, Allen Christopher (Max-Planck-Institut fur Physik (DE))

Presenter: Mr CALDWELL, Allen Christopher (Max-Planck-Institut fur Physik (DE))

Session Classification: Poster session

Track Classification: Accelerators for HEP