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# Introduction to the AWAKE project and its technical challenges

*Monday, 20 March 2017 09:30 (30 minutes)*

The Advanced Proton Driven Plasma Wakefield Acceleration Experiment (AWAKE) is a proof-of-principle R&D experiment at CERN which uses the first time ever protons to drive the plasmas wakefield. AWAKE aims to accelerate 10-20 MeV electrons to approximately 1 GeV in 10 m of plasma by using plasma wakefields created by a self-modulated 400 GeV/c proton bunch. This talk emphasises on the technical challenges of the AWAKE experiment and shows first results on the development of the self-modulation- instability which were obtained during the first physics run in December 2016.

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