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## Observation of beam driven plasma waves in a hybrid LPWFA

Beam driven wakefield acceleration is a promising method to generate high quality electron beams. Up to now beam driven wakefield acceleration experiments have been performed at large RF-accelerator facilities. Laser wakefield acceleration offers high peak current electron beams which potentially can be used to drive plasma wakefields. Here we show the generation of plasma waves in the second jet of a hybrid LPWFA (Laser Particle Wakefield Acceleration) by using few cycle probing. We observed a correlation between the length of the plasma wave cavities and the energy loss of the driver beam.

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