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Experimental investigation of sheath-driven proton acceleration in the ultra-short pulse, ultra-high intensity regime

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The behaviour of high power laser driven ion generation at the extreme intensities available at next-generation laser facilities is an important topic for realising potential applications. One of the simplest schemes for proton sources for applications is sheath acceleration, for which different models predict varying dependence on laser and target parameters, motivating experimental investigation.

We will present experimental data investigating sheath driven proton acceleration using the ultra-high intensity laser.

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