



Contribution ID: 288

Type: poster

Towards single-shot spatio-temporal characterisation of a multi-PW laser

Wednesday, 18 September 2019 19:00 (1 hour)

Full characterisation of ultra-intense laser pulses not only requires their separate characterisation in space and time, but also measurement of the entire spatio-temporal field distribution $E(x, y, t)$. While a variety of techniques has been developed for this purpose (e.g. STARFISH, TERMITES or INSIGHT), most of them rely on spatial or temporal scanning and thus require some thousand shots for a single measurement. An exception to this rule is STRIPED-FISH, which uses interferometry combined with hyperspectral imaging. We present a variation of STRIPED-FISH for implementation at the ATLAS-3000 multi-PW laser system in Garching. Providing the spatio-temporal distribution in a single shot, the setup is particularly suitable for experiments with low-repetition rate lasers aiming for highest focal intensities.

Primary authors: EBERLE, Christoph Marvin (Ludwig-Maximilians-Universität München); KARSCH, S. (Ludwig-Maximilians-Universität München; Max Planck Institut für Quantenoptik); DÖPP, A. (Ludwig-Maximilians-Universität München; Max Planck Institut für Quantenoptik)

Presenter: EBERLE, Christoph Marvin (Ludwig-Maximilians-Universität München)

Session Classification: Cheese and Wine Poster Session 2

Track Classification: WG7 - High brightness power sources: from Laser Technology to beam drivers