MATTER AND TECHNOLOGIES

Contribution ID: **26** Type: **Poster without speed talk**

Tuning the pulse shape of the photinjector laser at FLUTE via a neural-network controlled spatial light modulator

In order to achieve better control over the phase space of electron beams in linear accelerators, the laser pulse of the
photoinjector can be shaped by spatial light modulators (SLMs). Here, we use a deep convolutional neural network to
map a camera image of the Ti:Sa-800-nm photoinjector laser spot at the Ferinfrarot Linac- und Test-Experiment (FLUTE)
at KIT to a superposition of Zernike polynomial amplitudes shown on an SLM in the optical path of a test setup.

Speed Talks

Normal

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