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Shaping light with a mid-IR spatial light modulator

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Traditionally it has been custom to shape light using static diffractive optical elements (DOEs) tailored to a specific application giving only one shape. However the invention of spatial light modulators (SLM) which have nematic liquid crystals that are able to be controlled electronically to shape the phase of an optical beam into different patterns in real time. This innovation proved to be an efficient way to shape light without having a multiple and different DOEs. These devices however are wavelength depended and calibration is needed. We will discuss how we calibrate a mid-IR spatial light modulator using interferometry and also measure it diffraction efficiency.

Apply to be considered for a student award (Yes / No)?

Yes

Level for award (Hons, MSc, PhD, N/A)?

Msc

Main supervisor (name and email) and his / her institution

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Would you like to submit a short paper for the Conference Proceedings (Yes / No)?

No

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