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## Stokes polarimetry performed with a digital micromirror device

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In this work, Stokes polarimetry is used to extract the polarization structure of optical fields from only four measurements as opposed to the usual six measurements. Here, instead of using static polarization optics, we develop an all-digital technique by implementing a Polarization Grating (PG) which projects a mode into left- and right-circular states which are subsequently directed to a Digital Micromirror Device (DMD) which imparts a phase retardance for full polarization acquisition. We apply our approach in real-time to reconstruct the State of Polarization (SoP) and intra-modal phase of optical modes.

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

No

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

N/A

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