



ENDOSCOPIC POLARIZATION-RESOLVED IMAGING

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Keywords: optics, polarization, endoscopy, surgical imaging

We are exploring the use of endoscopic polarimetry in a range of minimally invasive surgical and diagnostic applications. We present results using rigid endoscopes for polarization- and wavelength-resolved reflectance imaging with the aim of providing image-guided surgical diagnostics and therapy. This includes designs for miniature polarization state generators using sheaths that fit around the outside of the endoscope body, with the polarization state analyzer consisting of a polarization array camera with additional polarization optics external to the endoscope. We are working with surgical teams to apply this during investigational laparoscopy in the abdomen and elsewhere.