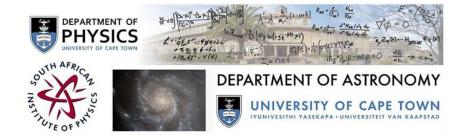Contribution ID: **175**　　　　　　　　　　　　　Type: **Poster Presentation**

Generating Arbitrary Optical Vector Beams

Wednesday, 6 July 2016 16:10 (1h 50m)

Abstract content
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Vector beams have many uses in optics and photonics such as optical communications, trapping and microscopy. Dynamic generation of scalar modes has become commonplace with the use of Spatial Light Modulators, however, due to the polarization dependent nature of SLMs, they cannot readily be used to create vector modes. Static vector modes can be readily generated using elements such as Q-Plates, however, dynamic vector beams remain a challenge. Here we outline several approaches to creating such beams in an all-digital manner that overcomes the aforementioned problems. Our work paves the way for encoding and decoding of information into such modes.

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Primary author:　Mr COX, Mitchell (University of the Witwatersrand)

Co-authors: Prof. FORBES, Andrew (CSIR); Dr ROSALES-GUZMAN, Carmelo (University of the Witwatersrand, Johannesburg)

Presenter: Mr COX, Mitchell (University of the Witwatersrand)

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