



Contribution ID: 521

Type: **Oral Presentation**

Non-Specialist Talk - Digital Holograms

Thursday, 12 July 2012 14:50 (40 minutes)

Abstract content
 (Max 300 words)

Traditionally monochromatic holograms are generated by illuminating an object with a suitable laser beam, and then recording the interference pattern between this object beam and an undisturbed reference beam on photographic film. However, there are many cases where one would like a hologram of an object that does not physically exist; a so-called digital hologram. While the theory required to create such digital holograms has been around for a number of years, it has only recently been possible to demonstrate these techniques in the laboratory. In this talk I will introduce the core concepts of creating customised optical fields using liquid crystal displays, and outline how to get started with such devices for the generation of digital holograms. I will overview some applications of such holograms in quantum and classical optics.

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

No

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

No

Primary author: Prof. FORBES, Andrew (CSIR/NLC)**Presenter:** Prof. FORBES, Andrew (CSIR/NLC)**Session Classification:** Photonics**Track Classification:** Track C - Photonics