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Type: **Oral Presentation**

Structured Light

Thursday, 14 July 2011 11:00 (30 minutes)

<p>With modern liquid crystal devices it is possible to implement digital holograms for the modulation in amplitude and phase of light: so called 'structured light'. In this non-specialist talk, we will introduce the concept of complex amplitude modulation, and show how light can be tailored to have interesting properties: defying diffraction, twisted like a spring in intensity and phase, and made to bend around corners! The ability to create arbitrarily complex fields opens up a plethora of applications, from controlling the micro-world through optical traps, to probing the quantum world with twisted light.

**Level (Hons, MSc,
 PhD, other)?**

PhD

**Consider for a student
 award (Yes / No)?**

No

**Would you like to
 submit a short paper
 for the Conference
 Pro-ceedings (Yes / No)?**

No

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Session Classification: LOS

Track Classification: Track C - Lasers, Optics and Spectroscopy