



Contribution ID: 224

Type: **Poster Presentation**

Implementing the Deutsch-Jozsa Algorithm with classical light

Wednesday, 1 July 2015 16:10 (1h 50m)

Abstract content
 (Max 300 words)
Formatting &
Special chars

We demonstrate an optical implementation of the Deutsch-Jozsa Algorithm using classical light. Our approach makes use of a spatial light modulator in order to digitally realize the quantum oracle. Furthermore, we take advantage of the intrinsic Fourier transforming properties of a lens to perform the measurements.

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

No

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

PhD

Main supervisor (name and email)
and his / her institution

Raul I Hernandez-Aranda, raul.aranda@itesm.mx, Tecnologico de Monterrey

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

Yes

Please indicate whether
this abstract may be
published online
(Yes / No)

Yes

Primary author: Mr PEREZ-GARCIA, Benjamin (Tecnologico de Monterrey, University of Witwatersrand)

Co-authors: Prof. FORBES, Andrew (CSIR); Dr MCLAREN, Melanie (University of the Witwatersrand); Dr HERNANDEZ-ARANDA, Raul (Tecnologico de Monterrey); Dr GOYAL, Sandeep (UKZN); Prof. KONRAD, Thomas (UKZN)

Presenter: Mr PEREZ-GARCIA, Benjamin (Tecnologico de Monterrey, University of Witwatersrand)

Session Classification: Poster2

Track Classification: Track C - Photonics