

# Meeting on Computational and Analytic Problems in Spectral Theory

Cardiff School of Computer Science & Informatics, June 6<sup>th</sup>-9<sup>th</sup> 2016

## Abstract of Talk

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### **ON THE GAPS IN THE SPECTRUM OF THE PERIODIC MAXWELL OPERATOR**

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In this talk we discuss the propagation of electromagnetic waves in a photonic crystal fibre. We demonstrate the existence of gaps in the spectrum of the periodic Maxwell operator with mildly contrasting coefficients and study the dependence on the location of these gaps with respect to the geometry of the media.

This is joint work with I. Kamotski (UCL) and V. Smyshlyaev (UCL)