



YCCSA Seminar Series Spring 2018

An interdisciplinary seminar series hosted by the York Cross-disciplinary Centre for System Analysis aimed at researchers from all disciplines

Exploring the potential for computation within sub-cellular Calcium signalling

Dr Chris Saunter

Department of Physics, Durham

**16 February 2018
Ron Cooke Hub, RCH/204 at 13:30**

Abstract:

Calcium signalling is a process by which information is transmitted within a single biological cell, and between multiple cells. Calcium signalling occurs in many non-neuronal tissues. How much information processing or computation occurs within this signalling network is an open question in biology. Motivated by this, I have been exploring a proof-of-concept, functionally complete logic gate set constructed from the components of Calcium signalling. In this talk I will explore approaches to modelling Calcium signalling and present results on the creation of the gate set.

The seminar includes a refreshment break to fuel interdisciplinary discussion

***Ron Cooke Hub is on Heslington East Campus – accessible by free bus services
Nos. 66 and UB1 running at frequent intervals from Heslington West.
The YCCSA Seminar room is on the second floor***