



YCCSA Seminar Series Summer 2017

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

Complexity on the ICU: Heart Rate Variability and Modelling Without Statistics

Dr Tom Lawton

Bradford Royal Infirmary

28 April 2017

Ron Cooke Hub, RCH/204 at 13:30

Abstract:

Heart Rate Variability is potentially of great predictive value in Intensive Care, and elsewhere, but has had little uptake primarily due to practical difficulties in undertaking the analysis. I believe that a simpler analysis can avoid a lot of these problems and have built a device capable of live reporting of HRV.

Modelling of systems has traditionally required an understanding of statistics in order to get at the 'real' distribution behind the data observed. When I was asked to model patient flows on our ICU, a combination of laziness and lack of data led to a hybrid solution which ultimately proved very successful. I am hoping to try this approach in other 'big data' scenarios.

The seminar includes a refreshment break

***Ron Cooke Hub is on Heslington East Campus – accessible by free bus services
Nos. 66 and 44 running at frequent intervals from Heslington West.
The YCCSA Seminar room is on the second floor***