

Centre for Doctoral Training in Molecular-Scale Engineering
Christmas Lecture

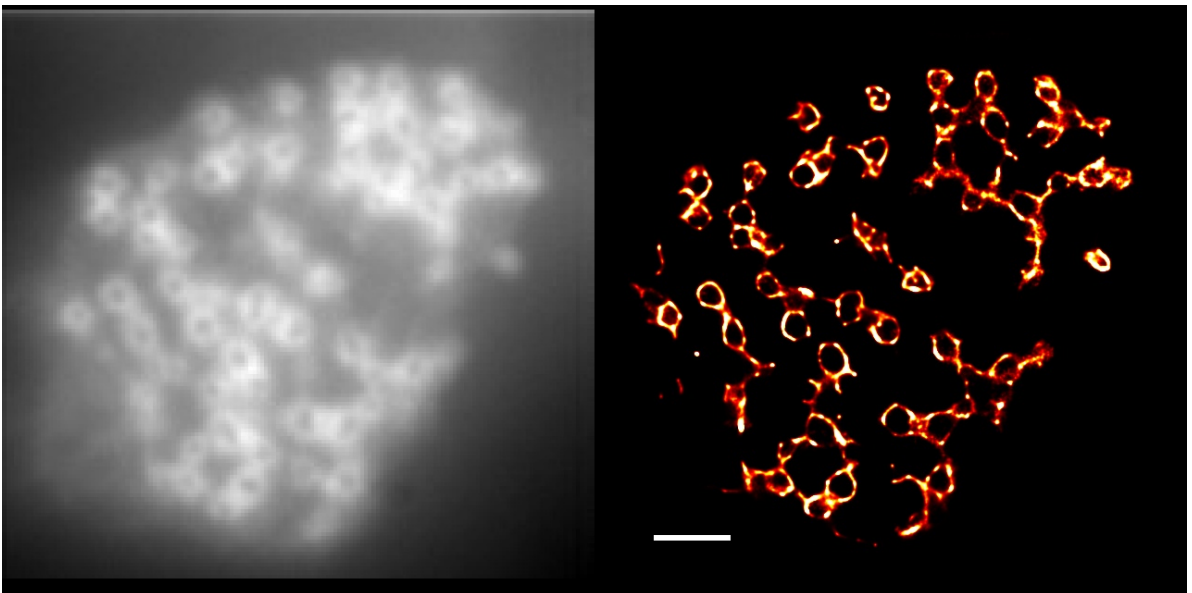
Information in Super-resolution Microscopy

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3pm on 4th December 2015

Lecture Theatre 5, Arts Tower, University of Sheffield



Fluorescence localisation microscopy allows cells to be imaged with a resolution down to 20nm. Both creating and understanding the significance of these images requires the extraction of information, either by using image analysis or by processing the resulting localised positions to enable a measurement of some characteristic of the sample. In this talk I will explore three different aspects of information in localisation microscopy: the limitations it places on the speed at which measurements can be carried out, how improved modelling of fluorophore photophysics can boost both speed and resolution, and a novel way to extract information about clustering in data.