

## OPEN SEMINAR SERIES

**Friday 22 March 2013**  
**10:00 – 11:00**

**SEERC Conference Room**  
**3<sup>rd</sup> Floor Strategakis Bldg**

### **“Physics, Computation and the Nature of Observation”**

**By**

**Dr. Mike Stannett,**  
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**The University of Sheffield**  
**UK**

#### **ABSTRACT**

In this talk Dr Stannett will briefly recap Turing's analysis of computation, and explain where and why it sometimes fails, and how cosmological phenomena like singularities and wormholes can potentially be exploited to solve questions that have traditionally been thought to be formally undecidable. We'll consider the extent to which physical models can themselves be represented computationally via an extended X-machine model, and show how this potentially undermines our intuitions concerning the nature of motion and reality.

**The seminar series is open to all members of *staff* and *students* of CITY and to any *externals* that wish to attend.**