16 Dec 2014, 2:00pm, Ingram 110 Speciall colloquium - note date and venue

## **Anthony Whitworth (Cardiff)**

## "Star formation and the Role of Feedback"

It is generally believed that stars form in interstellar clouds by turbulent fragmentation, followed by gravitational collapse and fragmentation. This is a highly chaotic process, spanning 18 orders of magnitude in density and six orders of magnitude in temperature and linear scale, so numerical simulations play a key role in trying to understand how it happens. I will discuss the constraints on star formation theory placed by observation, the physical processes that are presumed to be important, the (limited) success simulations have had in reproducing the observations, and the problems that remain to be solved. I will illustrate, with SPH simulations, some of the processes that may be at work.