



The Derby and District Astronomical Society

Friday 7th November - 7:30pm

**Prof Nial Tanvir –
“There's gold in them thar stars.”**

The talk will take place at the Friend's Meeting House, St Helen's Street, Derby, DE13GY. Please note that the fee for non-members is £3.

There's Gold in them thar stars

The origin of many of the heavy chemical elements, substances such as gold and platinum, has long been a mystery. The conditions to create such elements do not occur in normally in stars, and instead it has been proposed that they may be created in exotic locations, such as during a collision between two, ultra-dense neutron stars, in an explosion dubbed a 'kilonova'. In 2013, using the Hubble Space Telescope, we finally found the first direct observational evidence in support of this theory. This is particularly interesting since these kinds of mergers are also expected to produce copious gravitational waves, which may soon be detectable, and short-duration gamma-ray bursts.

Prof Nial Tanvir

Nial was born and brought up in Derby, and was a keen amateur astronomer from a young age. He read Maths and Physics at Durham University, where he subsequently obtained a PhD in Cosmology in 1992. He went on to positions at Durham, Cambridge and the University of Hertfordshire. Since 2006 he has been the Professor of Astrophysics at Leicester University. His main research interests are in the extragalactic distance scale, galaxy evolution and gamma-ray bursts.

Please note that occasionally due to events beyond the control of the Society there may be changes made to this programme. For the latest information please refer to the DDAS Website - <http://www.derbyastronomy.org/>