## The Making of Milton Keynes

# The Open University: Exploring the Universe

The Centre for Earth, Planetary, Space and Astronomical Research

CEPSAR studies the origins, systems and processes with respect to the evolution and chemistry of materials that form the stars and planetary bodies, the processes and natural systems that shape the environment of our habitable world now and in the past, and the essential properties of a Solar System that allows life to develop on one of its planets. The Centre provides an enthusiastic and integrated research culture, forging collaborative alliances across disciplines, and is committed to international research leadership. The centre brings together researchers from three different OU departments: Earth Sciences, the Planetary and Space Sciences Research Institute (PSSRI), and the Astronomy Research Group in the Department of Physics and Astronomy.

#### **CEPSAR's recent news stories:**

#### MK Black Hole Hunt!

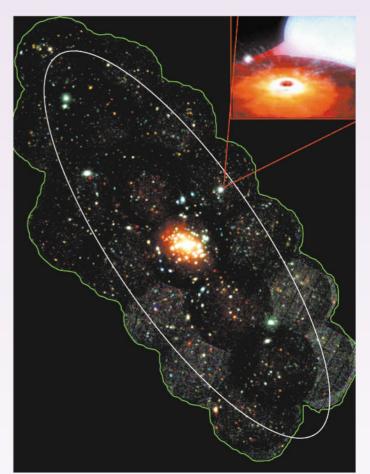
Black holes are impossible to see on their own. However, if they get close enough to another star, then they can eat it up, giving off huge amounts of X-rays. Scientists at the Open University have invented a new way of finding black holes using these X-rays. The one shown here was found in January this year, in the Andromeda Galaxy... it's as bright as 100,0000 Suns!



### The launch of the AKARI Space Telescope

This infrared space telescope has made a deep, all-sky infrared map to find the birth of stars and galaxies. Open University astronomers have designed key components of the data analysis and are leading many scientific programmes on AKARI.





This is an infrared image taken by the AKARI Space Telescope, which Open University scientists have been using to study the birth of stars and galaxies. This image is part of the Orion Arm of our own galaxy, and is about 3000-10,000 light years away. The bright spots are places where new stars like our own Sun are being born, in a convulsion of star birth. These intense nurseries are rare in our Galaxy, but were much more common earlier in the Universe when our solar system was created. The large, dark hollows are created by big, blue baby stars blowing away the gas in their neighbourhoods.





