Applied Astrophysics

Many researchers in astrophysics go on to use their skills in other sectors. The skills they have acquired, such as advanced programming, simulation, modelling and statistical analysis make them invaluable in many areas of industrial, technological and economic development.



Working Together

Much research in astronomy is directly linked to programmes that involve the public. For example, the *AuroraWatch* Project, which studies changes in the Sun, sends out email alerts when their data indicates that the Northern Lights may be visible from the UK.



The lost *Beagle 2* Mars lander was controlled from the National Space Centre in Leicester, in full view of the space centre visitors. Amateur astronomers continue to produce valuable scientific data, for example by tracking the paths of asteroids.

Growing Galaxies

Astrophysicists compare data from images to theoretical models. My research is in the field of galaxy formation, looking at the results of large supercomputer simulations based on such models. Work in recent years has meant that galaxies grown inside computers now look very much like those we see in the sky.

Mere does it

all come from?

Results from even larger computations, such as the vast *Millennium Simulation* pictured in the top-left, reproduce the weblike structure of the universe itself, and shed light on the invisible 'dark' matter structures in which galaxies are born.

Inspiring Images

Astronomical images, such as this magnificent galaxy, inspire us to find out more. What's it doing there? What do the colours mean? How did such intricate shapes form?



Visible to the Public Eye

Most astronomy research is publicly funded, so it is important that the public can see what we do! Newspaper and magazine articles, television programmes, public lectures, exhibitions, and school visits all help to keep scientists and the public interacting.





universe. Although it's the scientists that do the research, the results can amaze us all...

People Power

Public funding means that governments can influence the direction of scientific research. For example, NASA has recently moved its emphasis towards human space flight rather than robotic exploration. This policy change was initiated by the US government and has widespread support amongst the American public.

