Student heads research breakthrough

The University of Central Lancashire is very proud that one of its PhD students has been selected to present a paper at the meeting of the American Astronomical Society. Ilona Söchting from the University’s Centre for Astrophysics is presenting the findings of a study in which quasars are created. Quasars are among the most extreme and remarkable objects in the Universe and occur only when the nucleus of an otherwise ordinary galaxy switches on for a brief period to outshine all the other stars in the galaxy put together by as much as a hundred times.

Ilona is the lead author on the paper and has worked alongside Dr Roger Clowes, also of the University of Central Lancashire and Dr Luis Campusano of the University of Chile. They have completed a study of 60 quasars in the nearby universe in order to collect new clues to the physical processes that make quasars “switch on”.

Ilona has been working in the USA with research collaborators in Tucson, giving seminars and presenting the findings of her research to the AAS at Albuquerque, New Mexico.

The research group has identified two environments for quasars: either on the peripheries of clusters of galaxies or at the junction where two galaxies are colliding. By developing new techniques for finding clusters, Ilona Söchting and her colleagues have been able to identify the galaxy structures and prove their association with the location of neighbouring quasars. Their results provide important insights about the preferred locations of quasars and suggest strongly that more than one mechanism of their formation will be needed to account for the different environments revealed by this study.

Dr Roger Clowes, a member of the research group and the University of Central Lancashire’s Centre for Astrophysics said: “To be selected by the American Astronomical Society is both an honour and a recognition of achievement. It must be quite rare for a PhD student to be selected in this way. Ilona deserves this success.”

-ends-

NR58MD
5 June, 2002