

Christopher J Skinner 1963–1997

Infrared astronomer, talented young theoretician and instrumentalist.

Friends and colleagues of Dr Chris Skinner were shocked and saddened by his sudden death on 21 October 1997, while he was visiting his parents' home in Norfolk from his base at the Space Telescope Science Institute. His death, at the tragically early age of 34, has cut short an outstanding career in astrophysics. Chris had been recently appointed to a New Blood Lectureship in the University of Sheffield's Department of Physics and was due to take this appointment up in January 1998. He had been a diabetic since the age of two and indications are that it was a sudden worsening of this condition which killed him.

Following his education in King's Lynn, Norfolk, Chris undertook a BSc honours degree in physics and astronomy at University College London (UCL), graduating in 1984. He then stayed at UCL in order to undertake a PhD research project with the infrared astronomy group there. His project involved the building of CGS3, a 10 and 20-micron spectrometer which was successfully commissioned on the UK Infrared Telescope on Mauna Kea, Hawaii. He established his instrumentation skills then, but at the same time independently embarked on his own initiative on a separate collaborative project to analyse and model the 10 and 20-micron infrared spectra of cool star dust shells that had been obtained by the IRAS astronomical satellite. He quickly revealed himself to be a talented theoretician and programmer. This unique combination of expertise in both instrumentation and in theoretical modelling was to feature strongly in his subsequent successful career as a professional astronomer, and distinguished him from virtually every other astronomer.

Following his PhD in astrophysics in 1987

and a subsequent postdoctoral appointment at UCL, Chris won a SERC personal Research Fellowship, which he elected to hold at Jodrell Bank in 1990 and 1991. There he embarked on an energetic programme that made use of the MERLIN radio interferometer. In addition, he demonstrated how useful the Jodrell two-element Broad-Band radio Interferometer (BBI) could be.

At the end of 1991, Chris moved to a position at the Lawrence Livermore Laboratory in northern California, where he stayed for three years. There he was responsible for operating and upgrading the Berkcam 10-micron infrared camera. At the same time he initiated many successful new observing programmes which made use of this instrument on the Hawaiian telescopes. At the end of 1994 he took up a position at the Space Telescope Science Institute in Baltimore, Maryland, where he was part of the team responsible for the tricky but successful commissioning of the infrared camera NICMOS, which was installed on the Hubble Space Telescope by Shuttle astronauts in February of this year. Chris worked very long hours to characterize the properties of NICMOS, helping to make it the success it has become.

All through his professional career Chris was prolific in publishing scientific papers. These covered many topics, and included infrared, optical and radio observations, as well as theoretical radiative transfer modelling of molecular lines and dust emission continua. As a result Chris has made an enduring contribution to our understanding of dust disks around main sequence stars; mass loss; molecules and dust in outflows from evolved stars; and the origin of planetary nebulae.

A paper on the bipolar Cygnus Egg Nebula which he first-authored, and which appeared in *Astronomy and Astrophysics* after his death, is representative of his strengths and creative abilities, gathering a wide range of new observational data to which he applied sophisticated axisymmetric radiative transfer modelling and great physical insight to achieve an elegant new synthesis for understanding this complex system.

A search at the beginning of November 1997 using the Harvard–NASA Astronomical Data System revealed that Chris had authored 63 scientific publications in less than 10 years, of which 41 were in refereed journals. Further papers are in press. Chris maintained strong links with many former colleagues and was involved in several very productive scientific collaborations, including most recently the analysis of results from ESA's Infrared Space Observatory, ISO.

Clearly, Chris had a brilliant career in astronomy ahead of him. His untimely death is a major loss to infrared astronomy but particularly to UK astronomy, to which he was about to return. However, his loss is a deeper one for those who knew him personally. He always seemed to view life with amusement and certainly lived it to the full. His sense of the surreal was always evident – for instance, Uncle Billy's bar in Hilo was always his favourite place to repair after an observing run on Mauna Kea.

Chris's interest in people and in life was also evident in the many and detailed e-mails that he sent to his friends and colleagues – he must have typed millions of words into this medium over the years. It is difficult to come to terms with Chris's sudden loss. However, we can celebrate the fact that by the age of 34 his contributions to science had already surpassed those made by many practitioners over a full lifetime.
Mike Barlow.