

Professor Ian Smail - Herschel Medal (A)

Professor Ian Smail is awarded the Herschel Medal in recognition of his outstanding contribution to our understanding of galaxy evolution over cosmic time. Through his pioneering work on the discovery and subsequent intensive study of submillimetre galaxies, he has revealed the extent to which much star-formation activity, especially in massive galaxies, has been enshrouded by cosmic dust and hence hidden from view at shorter wavelengths.

His seminal paper in 1997 on the use of gravitational lensing by massive clusters to amplify the submillimetre emission from background galaxies, thus enabling a more distant and earlier population to be probed, was hugely influential and initiated a new field, which he himself led, to investigate their properties and their contribution to the history of star formation in the Universe. In this research he creatively exploited powerful new facilities as they became available, such as the SCUBA and SCUBA-2 submillimetre cameras and the ALMA interferometer. His work has established the nature and significance of the dust-enshrouded galaxy population, proving beyond doubt that the bulk of star-formation activity around cosmic noon (redshifts between 1 and 3) occurred in massive dusty starburst galaxies.

As well as being a talented and influential astronomer, Professor Smail has been a generous and inspiring mentor to many young researchers, and has also devoted much of his time and energy in service to the astronomical community, particularly through his wise and professional leadership of the UK Astronomy Grants Panel.