Royal
Astronomical
Society

The 2024 Winton Award (A) is awarded to Dr Chris Lovell

Dr Chris Lovell is an exceptionally promising post-doctoral scientist. His research interest is in the modelling of galaxies in hydrodynamical simulations, particularly in the early Universe.

His work is being used to understand and characterise some of the earliest forming galaxies discovered recently by the James Webb Space Telescope. He also has a keen interest in developing and applying novel machine-learning techniques to astrophysics.

One of the most challenging classes of galaxy to model are the dusty galaxies discovered in submillimetre surveys, galaxies which have exceptionally high star-formation rates.

It has been difficult to produce these galaxies in simulations, but Dr Lovell has shown that realistic 'submillimetre galaxies' can be formed in cosmological hydrodynamic simulations.

This important step forward is now allowing us to explore the properties of these galaxies in more detail, making possible detailed comparisons between the model and observations to motivate future observational programmes.

For these reasons, Dr Chris Lovell is awarded the 2024 Winton Award.