

THE JEREMIAH HORROCKS LECTURE

Black holes and spin-offs

Speaker:

Professor Katherine Blundell,
Professor of Astrophysics at the
University of Oxford and Research
Fellow at St John's College.

Monday 26th November 2018
6.30pm

Darwin Lecture Theatre
University of Central Lancashire

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Abstract

The popular notion of a black hole "sucking in everything" from its surroundings only happens very close to a black hole. Far away, the pull of the black hole is identical to that of anything else of the same mass. However, black holes do give rise to many remarkable phenomena such as extragalactic quasars and, in our own Galaxy, microquasars. This is because gravity is not the only law of physics that must be obeyed. Matter can be spun off from near black holes in the form of winds and jets that spread through their surroundings and thus cause black holes to have tremendous cosmic influence many light years beyond their event horizons. I will describe various approaches that I employ to investigate these phenomena, and their spin-offs.

Bio:

Katherine Blundell is a Professor of Astrophysics at the University of Oxford and a Research Fellow at St John's College. Prior to this she was one of the Royal Society's University Research Fellows, having been a Research Fellow of the Royal Commission for the Exhibition of 1851 and before that a Junior Research Fellow at Balliol College, Oxford. Her awards include a Philip Leverhulme Prize in Astrophysics, the Royal Society's Rosalind Franklin Medal in 2010, the Institute of Physics Bragg Medal in 2012, the Royal Astronomical Society's Darwin Lectureship in 2015 and an OBE in the 2017 Queen's Birthday Honours. Her research interests span a broad range of topics. She has published extensively on the evolution of active galaxies and their life cycles, on the accretion of material near black holes and the launch and propagation of relativistic jets. She has established the Global Jet Watch round-the-world telescopes to study round-the-clock dynamical and explosive phenomena in our Galaxy.

