

School of Physical Sciences Seminar

Date: Thursday 23rd February in N115 at 1pm

Speaker: Dr. Patrick Kavanagh (SPS Graduate)

Title: James Webb Space Telescope observations of the iconic supernova SN1987A

Abstract:

The nearby supernova SN1987A has provided us with a unique opportunity to study the aftermath of a supernova explosion, the birth of a supernova remnant, and is a Rosetta Stone for the physics of supernovae and dust destruction in the early Universe.

Even after more than three decades of scrutiny, many unanswered questions remain about this spectacular object including the origin of the iconic three-ring system, the nature and location of the compact object, and the composition and location of dust in the ejecta and circumstellar medium.

The exquisite sensitivity and resolution of the James Webb Space Telescope allows us to address these questions directly through near- and mid-infrared imaging and spectroscopic studies of the supernova remnant and its surroundings. In this talk I will present initial results from these observations, some of the earliest with this groundbreaking observatory.