

Jocelyn Bell

Burnell

1943–Present

What did she discover?

Jocelyn is an astrophysicist and astronomer born in Belfast, 1943. As a graduate student she studied and worked under an astronomer and her thesis supervisor at the University of Cambridge. As a team they worked to construct a giant radio telescope to monitor quasars. Quasars are massive celestial objects which emit large amounts of energy; they are thought to contain black holes and represent a stage in the evolution of some galaxies. Bell Burnell analysed data from the telescope and noticed

that some of the data did not fit the pattern of quasars. Jocelyn and her team were able to deduce that these unusual patterns must actually be coming from neutron stars, collapsed stars which are fast spinning but are unable to create black holes due to their small size. They called the neutron star patterns 'pulsars'. In 1974 the astronomer Jocelyn worked under, and her thesis supervisor, received the Nobel Prize for Physics for the discovery of pulsars. Jocelyn, however, was not credited. She was humble about this, but she did acknowledge that gender discrimination was most likely the reason. However, she was eventually recognised for her work and in 2007 Jocelyn was appointed Dame Commander for her services to astronomy.

This month's starter question...

Will our sun ever become a black hole? Why?