



ESA

# Planetary Ring Discovery!

Dwarf Planet (50000) Quaoar is the third small Solar System body known and confirmed to have a ring system, after 10199 Chariklo and 136108 Haumea. A partly dense, mostly tenuous and uniquely distant ring was first recognised and reported by Australian citizen astronomers soon after observing a stellar occultation in Aug 2021.

Its landmark dense and narrow section was discovered by Jonathan Bradshaw, Renato Langersek and John Broughton, but eight non-detections revealed its largely tenuous nature. Scientists gained additional detections from subtle dimmings in a few earlier lightcurves and announced the discovery in February 2023 in the journal Nature.

The ring orbits Quaoar at more than double the supposed Roche limit and so far defies explanation.

