

## Odd Radio Circles Four Years On

*Thursday, 9 May 2024 11:15 (15 minutes)*

It is now four years since we discovered ORCs - faint radio circles about a million light years diameter surrounding galaxies at a redshift of around 0.5. We now know they come in at least 2 varieties (single and double), and that there are many “ORC-lookalikes” which resemble ORCs but don’t have the characteristic edge-brightened ring of ORC1, which remains the archetypal ORC. We now know that they are even rarer than we first thought, and we were very lucky to have found one in the EMU pilot survey. We know that the higher sensitivity of Meerkat doesn’t find a new population of fainter ORCs, and we have recent spectroscopy of a host that shows a smoking gun from the outburst that caused the ORC. And yet we don’t seem much closer to understanding the mechanism that generated them. Here we will present new unpublished data, review the progress that has been made, and compare the competing models of mechanism that might have generated them.

### keywords

ORC AGN

### In-person or online?

online

### Career level

Mid-Senior

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