Searching for intermediate mass black holes in NGC3310

Megan Argo (UCLan), Joseph Coppola (UCLan), Hannah Earnshaw (Caltech), Mar Mezcua (IEEC-CSIC), Tim Roberts (Durham)

Intermediate-mass black holes are theoretically predicted but observationally elusive, and evidence for them is often indirect. The nearby face-on spiral galaxy NGC3310 has hosted many supernovae in recent history, and recent Chandra observations have shown a group of strong off-nuclear x-ray sources that are coincident with radio emission seen in archival VLA and MERLIN observations. Their luminosity, spectrum and off-nuclear location make these sources excellent IMBH candidates. To investigate this possibility, we used combined EVN/e-MERLIN observations at both 1.4 and 5 GHz to look for compact radio emission and evidence of jet activity. I will show the results of these observations and the implications for IMBH parameter space.