

Asymmetric jet production in NGC1052

A.-K. Baczko, R. Schulz, E. Ros, M. Kadler, M. Perucho, C. Fromm, J. Wilms

AGN with a twin-jet system are rare. Even more unusual are those which reveal asymmetries between both jets as well as being absorbed by a surrounding torus. The LINER NGC 1052, located at a close distance of about 20 Mpc, is a source that has both. Does this imply intrinsic asymmetry and even infer an asymmetric jet production? One indication towards this interpretation is the difference in speeds between both jets observed at 43 GHz (about 0.35c for the eastern jet and 0.57c for the western one).

We present multi-wavelength observations from 1.4 GHz up to 86GHz to probe regions on scales from milli-parsec up to several parsecs. In this way, free-free and synchrotron-self absorption can be examined in detail from a fully obscured inner area at low frequencies to a glowing central core in the jet forming regions at higher frequencies. Resolutions down to 50 micro arcseconds, thanks to RadioAstron and mm-VLBI, give us access to unknown regions in which we expect the formation of the twin-jet system.