

The black hole - host galaxy relation for very low-mass quasars

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Abstract

We have investigated the $M_{BH} - M_{host}$ log-linear relation for a sample of 37 quasars with low black hole masses ($10^7 M_{\odot} < M_{BH} < 10^{8.3} M_{\odot}$) at $0.5 < z < 1.0$. For 25 quasars, we detected the presence of the host galaxy from deep near-infrared H -band imaging, whereas upper limits for the host galaxy luminosity (mass) were estimated for the 12 unresolved quasars. 75% of quasars were disc dominated. We advocate secular evolution of discs of galaxies being responsible for the relatively strong disc domination.