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Ivan Delvecchio: How not to get lost in the jungle of radio AGN: clues from their hosts

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Radio-selected AGN are undoubtedly a great class of objects for studying BH duty cycle, AGN feedback and their long-term impact on galaxy evolution. However, radio AGN samples are highly heterogeneous, spanning several orders of magnitudes in size, obscuration, kinetic power and eddington ratio. In the local Universe, spatially resolved imaging, optical spectroscopy and radio morphologies have ascertained the wide diversity of the radio AGN population. Nevertheless, whether radio AGN activity is either as a natural byproduct of galaxy growth, or its internal sculptor, remains unclear. I will show how understanding this broad connection is further complicated by the huge variety of radio-AGN hosts, at fixed radio AGN power, observed at higher redshifts ($z>0.5$). I will discuss how marginalizing for stellar mass, host-galaxy type and redshift might help us (i) refining the "radio-loudness" criterion, and (ii) constraining the average BH accretion rate and kinetic power across the galaxy population.