

# Large-scale radio morphology and nuclear accretion in FR II-low-excitation radio galaxies

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Radio galaxies (RGs) are among the most energetic manifestation of the AGN phenomenon and, as such, are extraordinarily relevant to address important unknowns relating accretion and ejection, and to investigate the role of the surrounding environment in shaping the radio morphology.

The best candidates for this pioneering study are the RGs classified as FR II-LERGs, since they show both a radio morphology typical of powerful RGs (expected to have a standard accretion disc) and have an inefficient engine, as suggested by their optical spectra.

In this work we study the X-ray properties of all the FR II-LERGs of the 3CR sample at  $z < 0.3$  testing three possible scenarios: (i) FR II-LERGs are recently switched-off high-excitation RGs (HERGs) with efficient accretion disc; (ii) FR II-LERGs are strongly absorbed HERGs; (iii) FR II-LERGs are inefficient accretors and their large-scale radio emission is mainly determined by the environment. These results will be further supplemented by multi-wavelength observations, with particular attention to the radio band.

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