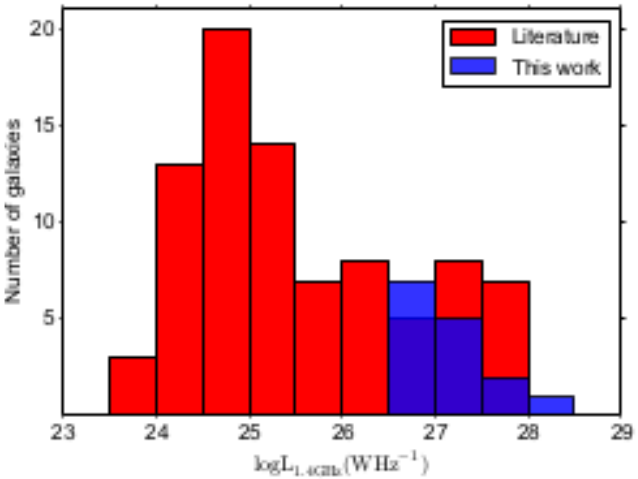
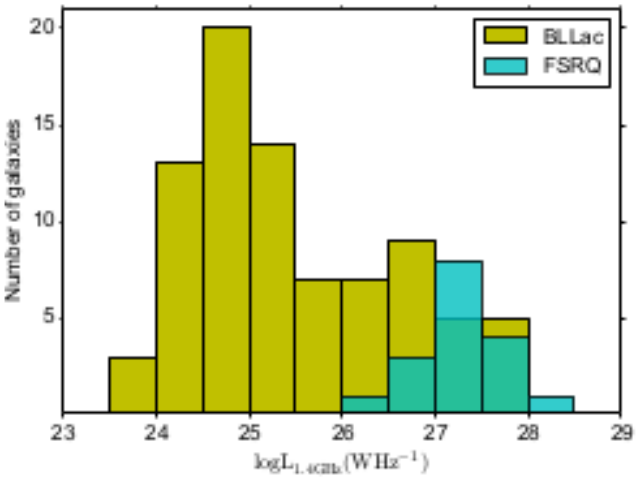
The host galaxies of AGN with powerful relativistic jets

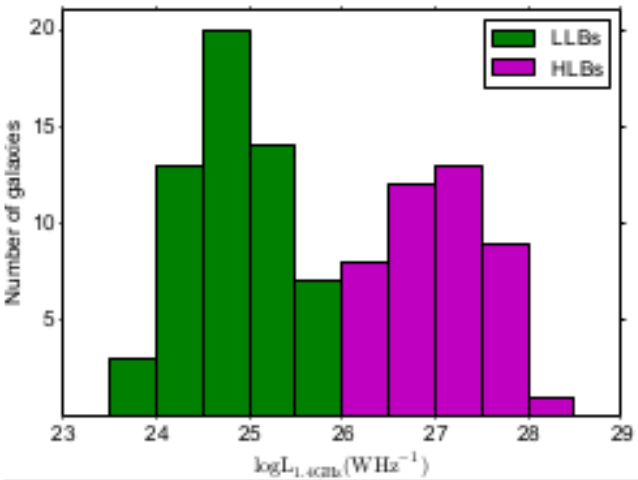
Olguin-Iglesias, Leon-Tavares, Kotilainen, et al. 2016, MNRAS, accepted (arXiV:1605.05525)

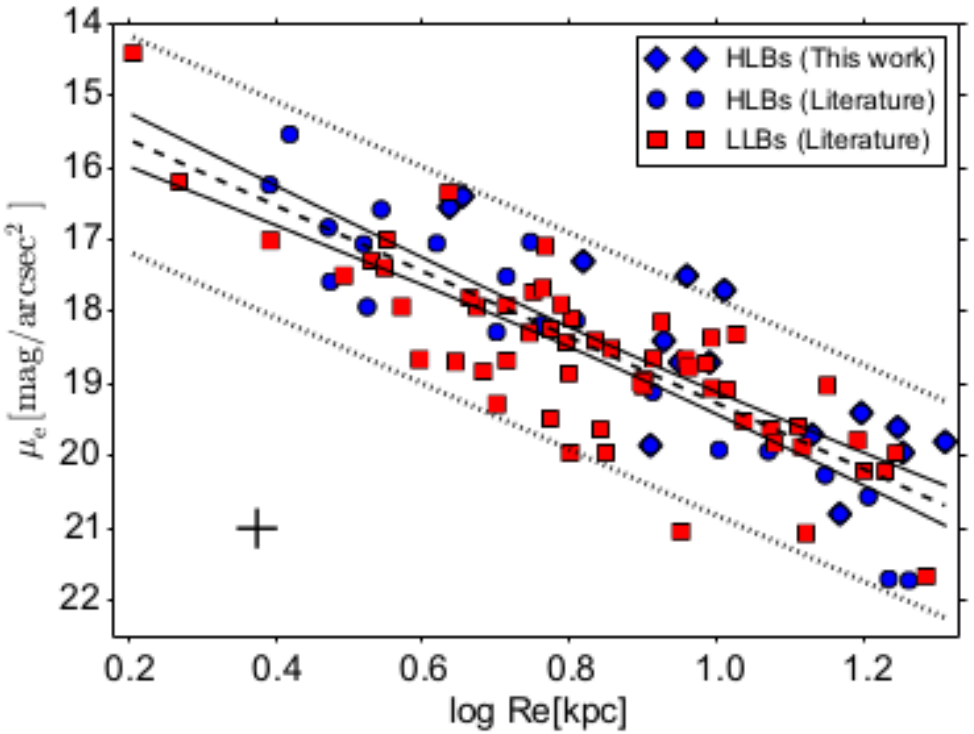
Deep NIR imaging of 19 intermediate-z (0.3 < z < 1.0) radio-loud blazars with powerful relativistic jets **+** 81 blazars from literature with host galaxy detection, covering a broad range of radio luminosity.

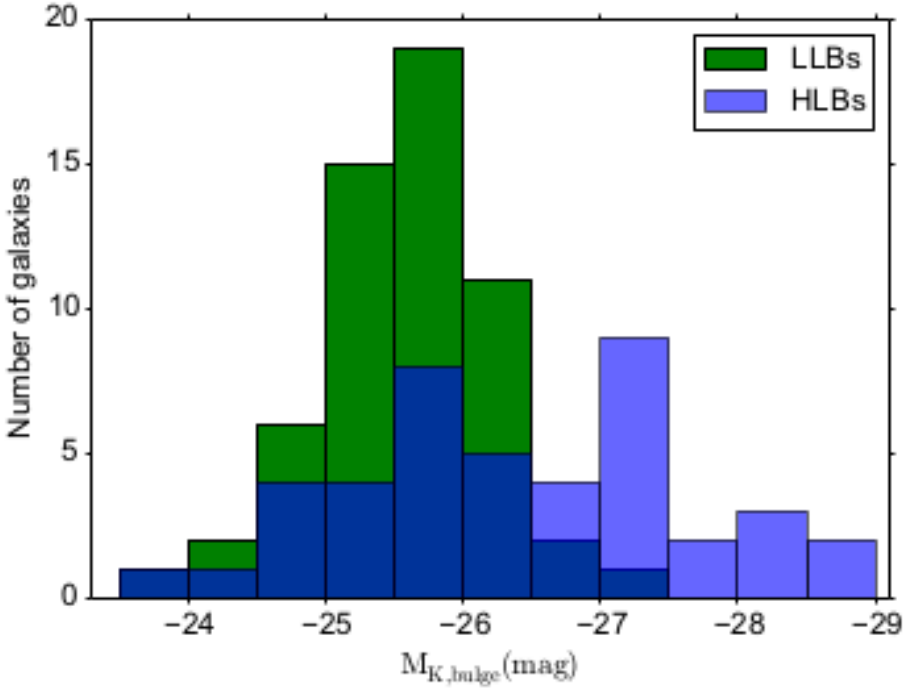
Sample divided into high-luminosity blazars (**HLB**) and low-luminosity blazars (**LLB**).



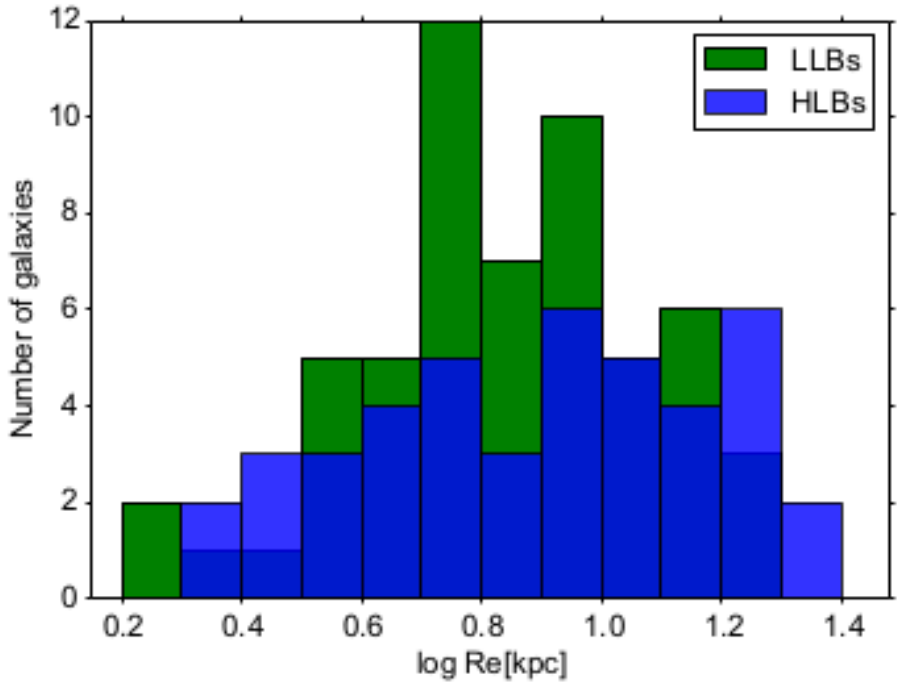


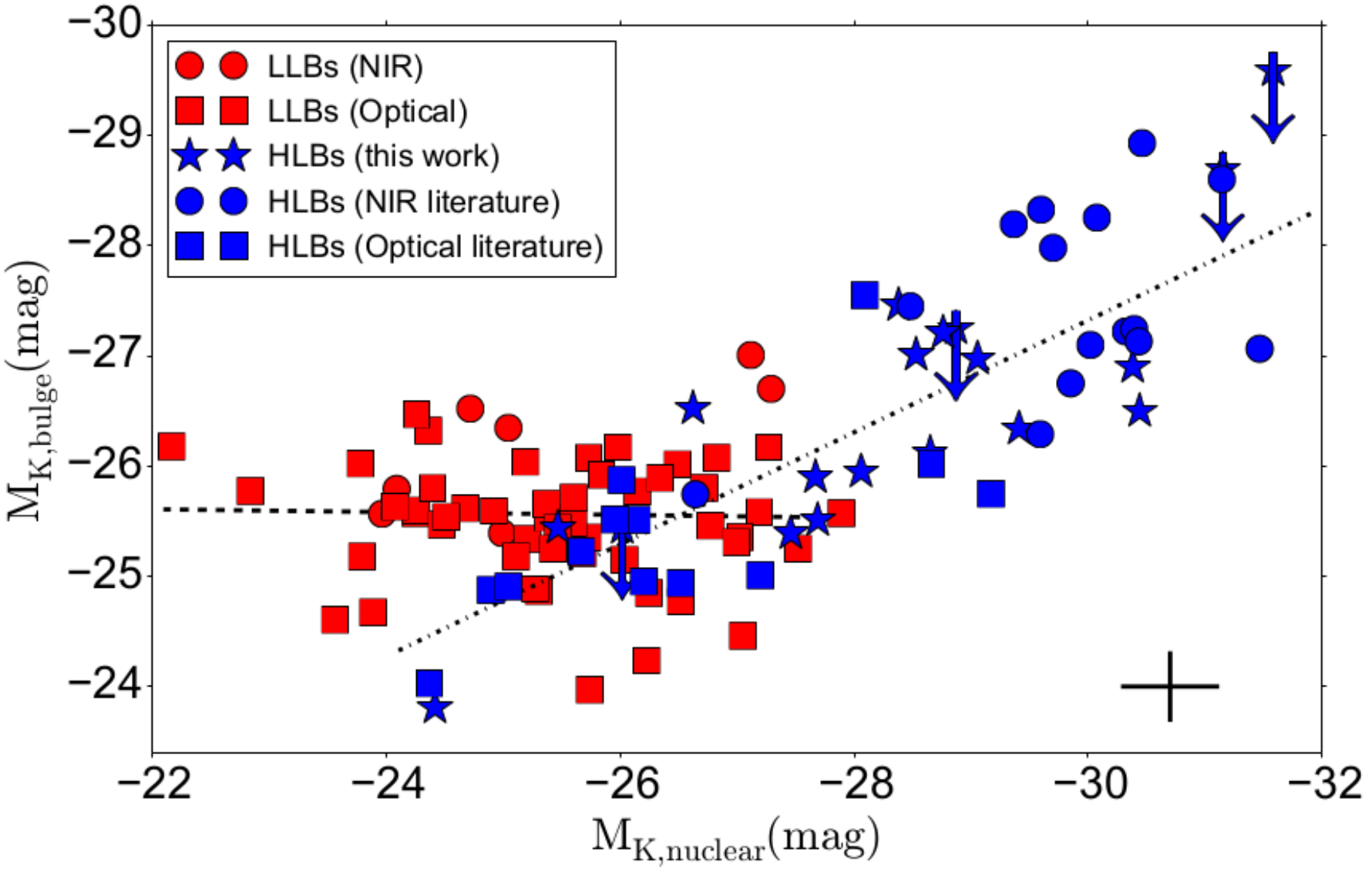






The host galaxies are bright and follow the μe -Reff (Kormendy) relation for ellipticals and bulges.





Nuclear and bulge luminosity correlated for HLBs, suggesting a close coupling (AGN feedback) between the accretion mode of the SMBH and its host galaxy.

Consistent with semi–analytical models, where for high–luminosity AGN, galaxy mergers and interactions provide cold gas to feed both AGN and SF