

**DICHOTMY OF RADIO LOUD (RL) AND RADIO QUIET (RQ)  
QUASARS IN FOUR DIMENSIONAL EIGENVECTOR 1 (4DE1)  
PARAMETER SPACE**

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Recent work has shown that it is possible to systematize quasars (QSOs) spectral diversity in 4DE1 parameter space. The spectra contained in most of the surveys have low signal to noise ratio which fed the impression that all QSO's are spectroscopically similar. Exploration of 4DE1 parameter space gave rise to the concept of two populations of QSOs that present important spectroscopic differences. We aim to quantify broad emission line differences between radio quiet and radio loud sources by exploiting more complete samples of QSO with spectral coverage in  $H\beta$ , MgII and CIV emission lines. We used a sample of 11 quasars with redshift  $0.35 < z < 1$  of strong radio emitter QSOs observations from Calar Alto Observatory in Spain. We analyzed the broad lines by doing multicomponent non-linear fitting of the emission lines in particular of  $H\beta$ , FeII and MgII by using the IRAF task SPECFIT and determined the main parameters of each component. We also evaluated the parameters characteristic of the full emission line profiles, FWHM, centroids at different fractional intensities, kurtosis, asymmetry index, total flux and equivalent width as well as their uncertainties in each parameter. We estimated the SMBH mass and the Eddington ratio  $L/L_{Edd}$  using mainly the  $H\beta$  region by using different scaling relations. Additionally, we estimated the mass of the black hole by using the MgII $\lambda$ 2800Å lines as a supplementary virial estimator. We found a good correlation between all the parameters and the estimated quantities are within the range of the acceptable results.