

THE RELATIONSHIPS BETWEEN SPECTRAL PROPERTIES OF ACTIVE GALACTIC NUCLEI TYPE 1

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In order to investigate the AGN spectral properties in the optical and UV range, we choose the sample of 300 AGNs type 1 from Sloan Digital Sky Survey (SDSS). Their emission lines are fitted with multiple Gaussian functions, where each Gaussian represents the emission from one emission region. The optical and UV iron lines are fitted with a template.

Since the line parameters, obtained from the best fit, reflect the physical and kinematical properties of the regions where they arise, we investigate the relationships between kinematical properties of the UV and optical lines and their components, in order to find if there are any kinematical connections between their emission regions. The relation between emission lines and continuum luminosity (Baldwin effect) is analyzed, but specially for different line components, which are assumed to arise from different emission regions. The new model of Balmer continuum is proposed, and we apply it in order to investigate the properties of the UV continuum. The influence of starbursts to AGN spectral properties is investigated, and we found that objects, which should be expected to have significant contribution of starburst emission, have significantly different correlations between some spectral properties.