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Progress Report

THE CONNECTIONS BETWEEN THE MID-INFRARED AND OPTICAL SPECTRAL LINE AND CONTINUUM CHARACTERISTICS OF AGNs: AGN VS. STARBURST EMISSION

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We investigate the optical and mid-infrared (MIR) spectral characteristics of the Type 1 AGNs (z<0.7) which have been observed with SDSS DR12 and Spitzer telescopes. We explore connections between starbursts and AGN. The optical and MIR spectral characteristics do not always give the same results about the AGN and starburst contribution to the emission of Type 1 AGNs, but these results are related. A similar conclusion we also obtain for a data set of Type 2 AGNs (collected from the literature). These differences had been explained in the literature by the several possibilities, such as the extinction at the optical wavelengths, different sizes of slits, or the radiation may come from the different regions. Analyzing the spectral line and continuum parameters in the optical and MIR we discuss a complex model that has an AGN (central optical source and torus which contribute to the MIR) and contribution of the starburst emission (narrow optical lines and MIR).