

Features of Dust Attenuation Law in UV and IR Observational Properties for Galaxies

Ye-Wei Mao (Purple Mountain Observatory, University of Science and Technology of China), Xu Kong (University of Science and Technology of China), and Lin Lin (University of Science and Technology of China)

The correlation between IR-to-UV luminosity ratio and UV color (or UV spectral slope), i.e., the IRX-UV (or IRX-beta) relation, found in studies of starburst galaxies is a prevalent recipe for correcting internal dust attenuation for galaxies. However, considerable dispersion in this relation discovered for normal galaxies complicates its usability. Follow-up my previous work which investigates influences of stellar population

age on the IRX-UV relation, in this talk, I will present my new study which concentrates on features of dust attenuation law in UV and IR properties for galaxies, and as a consequence provides an interpretation of the dispersion in the IRX-UV relation from the viewpoint of attenuation law. This work is on the basis of spatially resolved measurements of nearby galaxies and spectral synthesis modeling of stellar population and dust attenuation.