PHYSICS AND ASTRONOMY SEMINAR

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AGN Emission Line Diagnostic Diagrams

SDSS has provided us with a huge spectroscopic dataset to facilitate the identification and the study of AGN (Seyferts) and LINERs in the local universe. However, one critical limitation of SDSS and most other spectroscopic surveys is that the emission lines from non-HII ionizing sources are contaminated by star formation, complicating the physical interpretation of diagnostic diagrams like the BPT diagram. Indeed, the span of the AGN branch on the BPT emission line diagram is often taken to primarily be the result of the mixing of pure AGN with various amounts of SF, a picture that has not been empirically verified. I will first discuss the reliability of emission line diagrams from the standpoint of deep X-ray surveys and then I will introduce a new method to remove this SF contamination, allowing us to reveal the extent of the intrinsic diversity of type 2 AGN, which appears to be much greater than usually thought.

Wednesday, June 9, 2021

10:00 a.m. PST

For more information: https://www.sfu.ca/~jwa304/seminars.shtml