

A SPECTRAL ENERGY DISTRIBUTION FOR EXTREME POPULATION A SOURCES

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Knowledge of the broad-band active galactic nuclei (AGN) spectral energy distribution (SED) that ionizes the gas-rich broad emission line region (BLR) is key to understanding the various radiative processes at play and their importance that eventually leads to the emission lines formation. We modelled a set of SEDs for highly accreting quasars, also known as xA sources or extreme Population A, based mainly on observational data available at astronomical databases.

Our main selection criteria is the $R_{\text{Fe II}}$ parameter, the ratio of the optical Fe II emission between 4434 Å and 4684 Å to the $\text{H}\beta$ intensity, which yields that high accreting sources (pop. A3 and A4) show $R_{\text{Fe II}} \geq 1$. We started with over 300 xA sources previously reported on the literature and ended with nearly 50 xA sources used to create a set of mean SEDs spanning from radio to X-ray.