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Abstract:

The UV SED parameter b_{λ} as in $f_{\lambda} \sim \lambda^{-b}$, is commonly used to estimate fundamental properties of high-redshift galaxies including age and metallicity. However, sources and processes other than age and metallicity can influence the value of b . We use the local star-forming dwarf galaxy, I Zw 18, in a case study to investigate uncertainties in age and metallicity inferred from b due errors or uncertainties in:

- mode of star formation (instantaneous starburst vs. continuous SF)
- dust extinction
- nebular continuous emission (2-photon emission, Balmer continuum flux)
- presence of older stars