Calibration and Standardization of Large Surveys and Missions in Astronomy and Astrophysics



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From Hubble's NGSL to Absolute Fluxes

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Hubble's Next Generation Spectral Library (NGSL) consists of R~1000 spectra of 374 stars of assorted temperature, gravity, and metallicity. Each spectrum covers the wavelength range, 0.18-1.00 μ . The library can be viewed and/or downloaded from the website, http://archive.stsci.edu/prepds/stisngsl/. Stars in the NGSL are now being used as absolute flux standards at ground-based observatories. However, the uncertainty in the absolute flux is about 2%, which does not meet the requirements of dark-energy surveys. We are therefore developing an observing procedure that should yield fluxes with uncertainties less than 1% and will take part in an HST proposal to observe about 15 stars using this new procedure.

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