
The challenges of observing, calibrating, and modeling stellar spectral energy distributions

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Abstract

With optical and quantum efficiency on the rise and spectrographs becoming massively multiplexed, measuring spectral energy distributions of astronomical sources with accuracy remains a challenge. In addition to atmospheric refraction, extinction, and variability, and limited apertures of instrument entrance slits and optical fibers, accurate calibration is hampered by issues such as a limited choice of reliable standard stars. Modeling stellar spectral energy distributions has seen good progress, but some weaknesses remain, especially for late-type stars. This talk will provide an overview of these matters and discuss observation, calibration, and modeling strategies for future large spectroscopic surveys.

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