

HST Absolute Spectrophotometry of Vega from the Far-UV to the IR

R. C. Bohlin & R. L. Gilliland

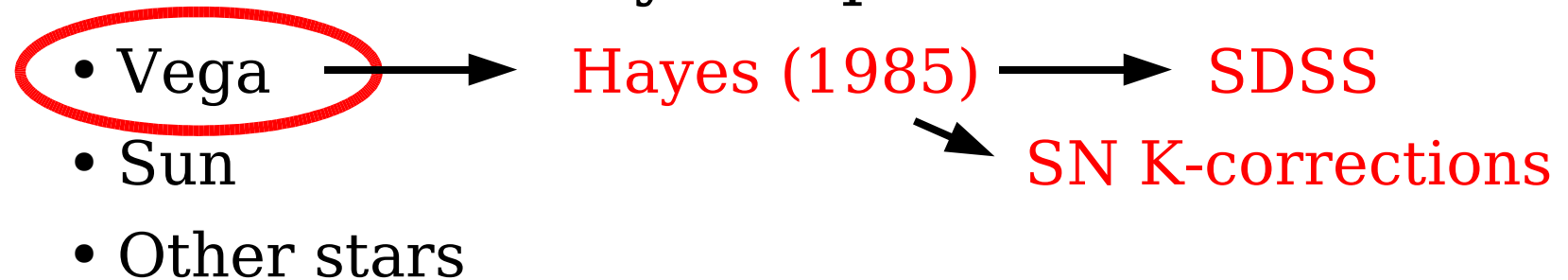
Context

- Approaches to astronomical flux calibration
 - Ground blackbody compared to
 - Vega
 - Sun
 - Other stars
 - Spectral models
 - Vega
 - Sun
 - White dwarfs

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- Ground blackbody compared to



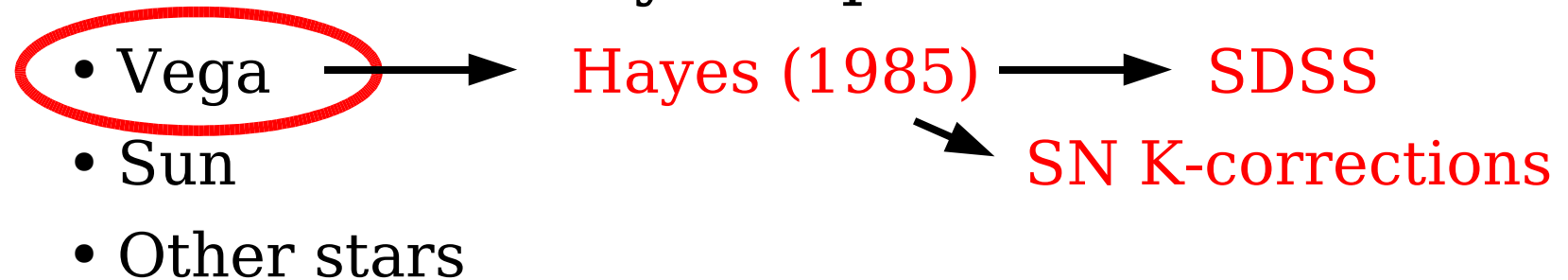
- Spectral models

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 - Sun
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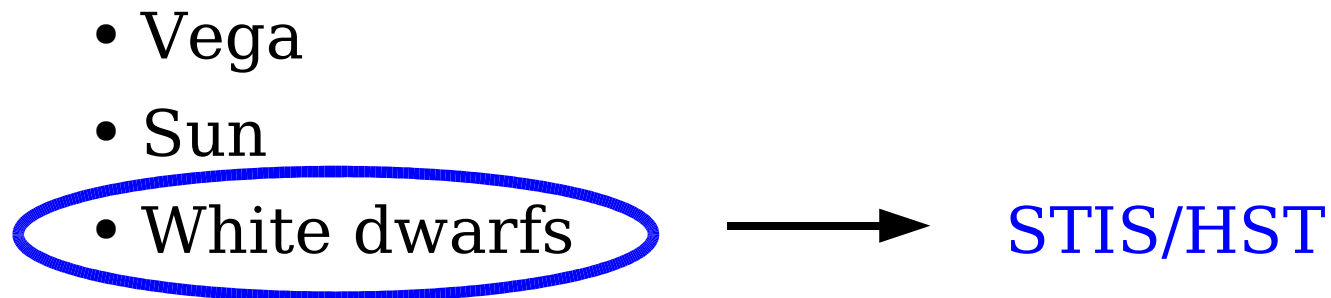
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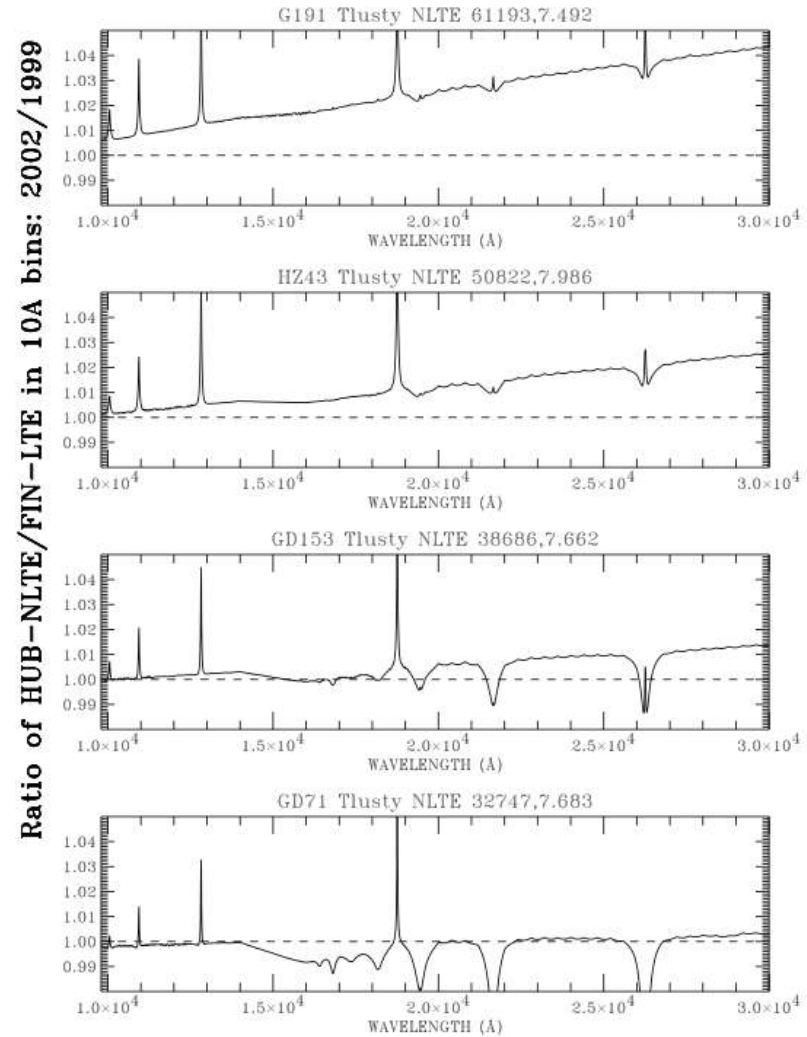
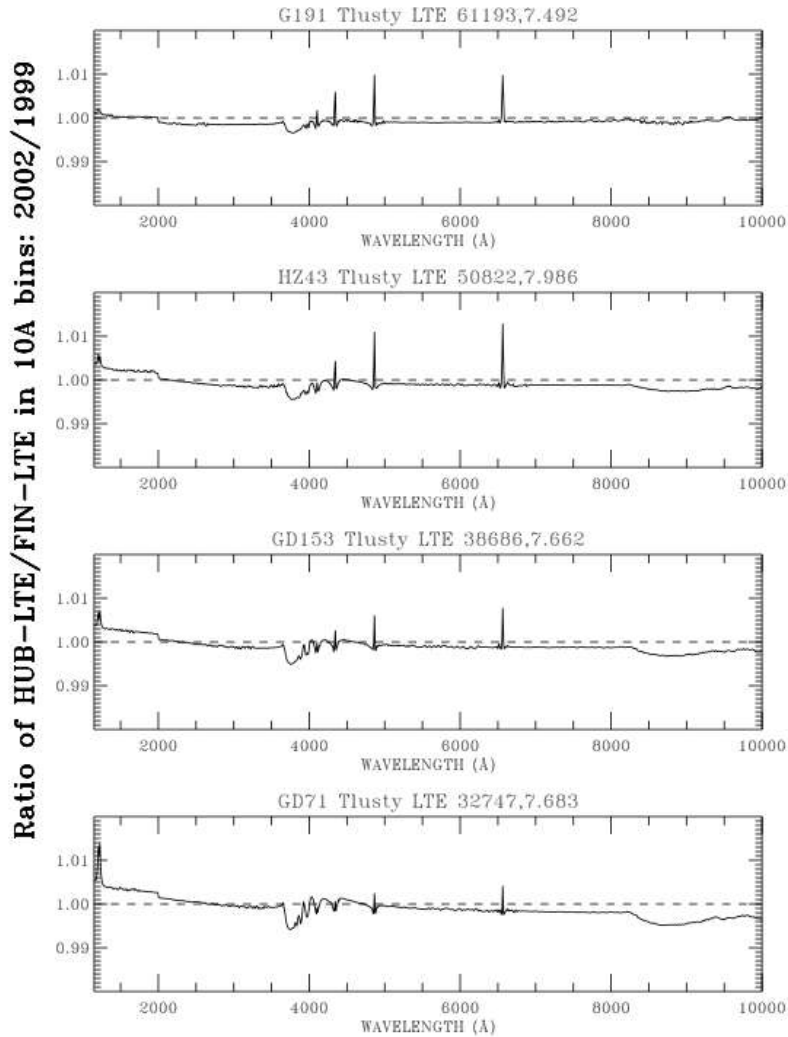
Blackbody Calibration

- Alternate observations between Cu, Pt blackbodies, Tu lamp
 - (refs. Oke & Schild, Hayes & Latham, Tug, Terez & Terez, Knyazeva & Kharitonov)
- Problems
 - Different optical paths, atmosphere
 - Irreproducibility of Pt melting points
 - Instability of Tu lamp
- f_{5556} quoted uncertainty 1-2%, observed dispersion 4.4% (Megessier 1995)

Model Calibration

- Fundamental standard is the model for the objects in question, not cgs!
- Problems
 - Fundamental standard isn't stable in flux; as models change so do derived fluxes
 - Models wrong
 - Vega's observed IR excess is not predicted by Kurucz models to better than several percent.
 - Models don't include foreground dust
 - Different models for the same object can look different

Differences in White Dwarf Models



- Comparison between Hubeny vs. Finley & Holberg models

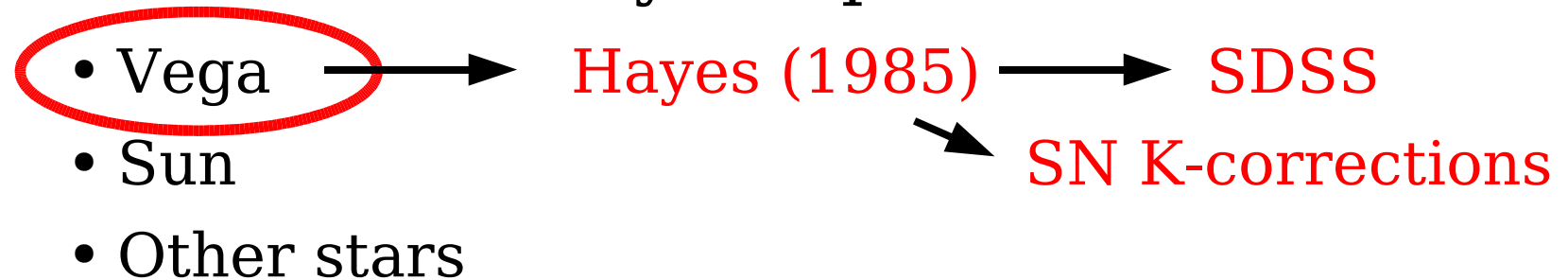
Paper Purpose

- Use STIS to measure Vega on the HST White Dwarf flux scale
- Compare with Hayes flux calibration and Kuruncz model
- Establish HST Vega standard

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