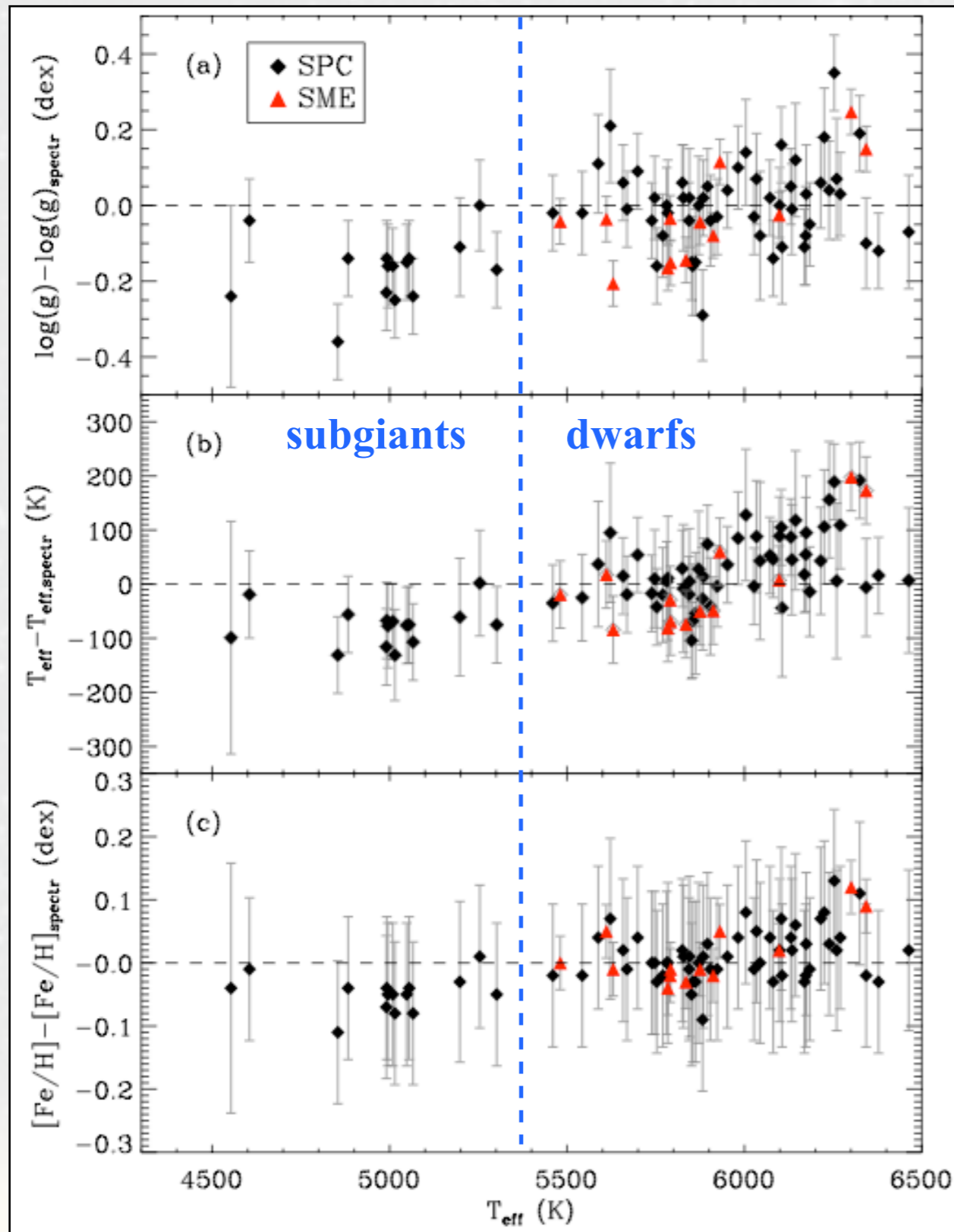


Spectroscopy using Asteroseismic Surface Gravities

Daniel Huber (NPP Fellow / NASA Ames)

Constrained - Unconstrained Analysis



- **Stellar Oscillations:** constrain $\log(g)$ to < 0.03 dex; measured for ~ 80 Kepler exoplanet host stars

- **Idea:** fix $\log(g)$ in spectroscopic analysis to seismic value, compare to unconstrained analysis

- **Results:** Correlated systematic offsets, particularly for sub-giants (up to 0.2 dex in $\log(g)$, $\sim 50\%$ in radius!)

- **Future:** seismic $\log(g)$'s for ~ 500 Kepler FGK dwarfs will be available (Chaplin et al., in prep); use to improve spectroscopic methods?

Huber et al. 2013 (ApJ 767, 127)