



University of
Zurich ^{UZH}



Uncertainty Budget Requirements of In Situ and Airborne Spectrometers for Satellite CAL/VAL

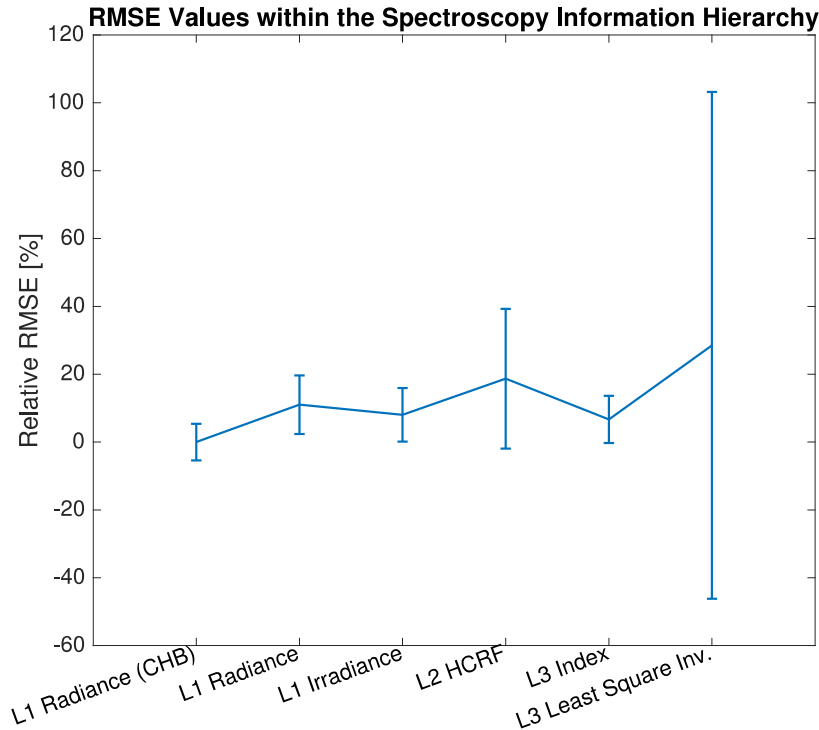
CALCON 2016, Logan (UT)

A. Hueni (UZH)





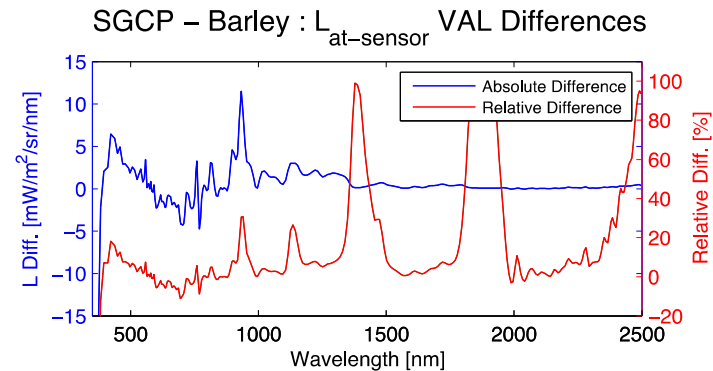
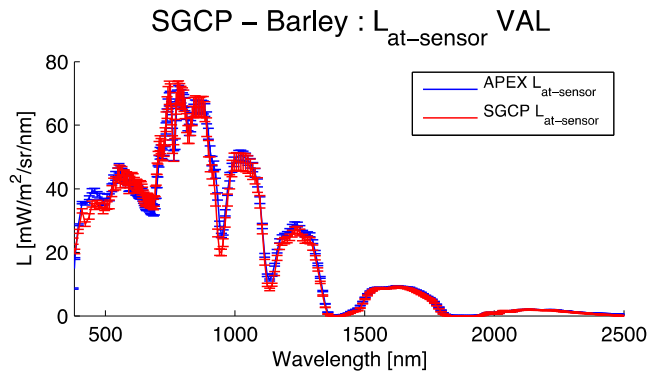
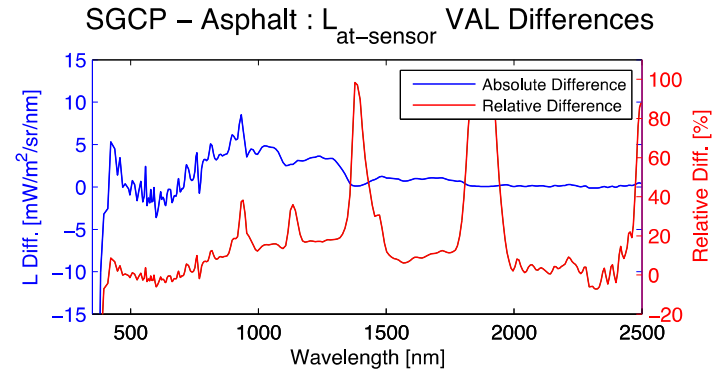
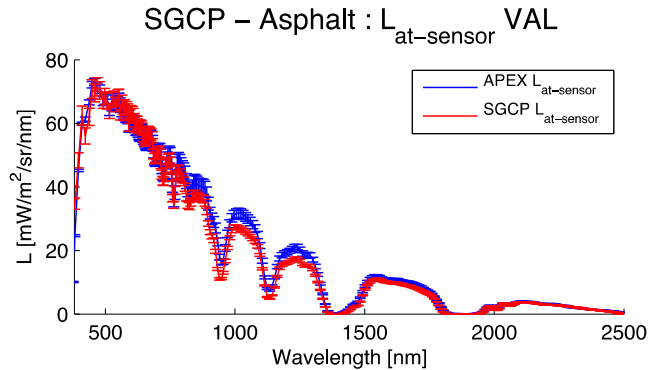
Uncertainty Estimates from in site and airborne X-VAL



Hueni, A., Damm, A., Kneubuehler, M., Schläpfer, D. and Schaepman, M. (2016). "Field and Airborne Spectroscopy Cross-Validation - Some Considerations." JSTARS accepted.



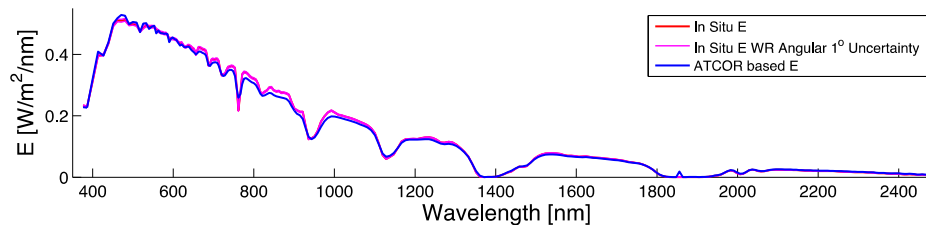
Radiance Level X-VAL



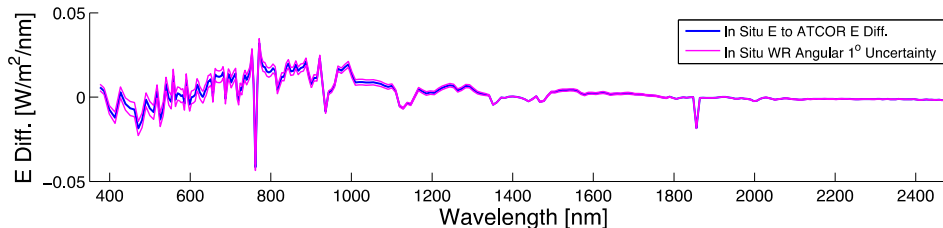


Irradiance Estimation Issues

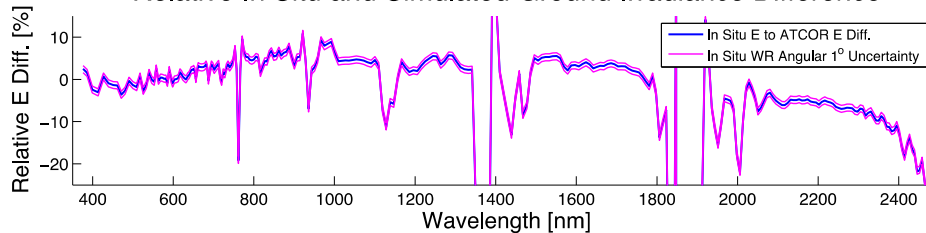
In Situ and Simulated Ground Irradiance



Absolute In Situ and Simulated Ground Irradiance Difference



Relative In Situ and Simulated Ground Irradiance Difference





Some Thoughts ...

- Uncertainties will drop for CAL/VAL of broader band sensors
- The presented target suffer from size and homogeneity issues, and are in a non-desert environment -> Basing on Gobabeb, Railroad Valley, etc would likely be more accurate
- What uncertainty should we strive for to provide useful data for satellite CAL/VAL?