CEDAR Workshop: Calibration and Analysis Techniques for Passive Optical and Lidar Observations

Thurs. June 26th, 1:30-3:30 PM

Accurate calibration is important for inter-comparison of observations, data/model comparisons, and long-term investigations. We invite discussion on a broad range of topics relating to passive optical and lidar observations and their analysis. Possible topics include absolute and relative intensity calibration, wavelength calibration, spatial scale determination, error analysis, correction for scattering within the lower atmosphere, isolation of atmospheric lines of interest, flat field techniques, and spectral fitting approaches. In addition to reporting progress on calibration and analysis techniques, this workshop provides an opportunity to discuss challenges and questions to gain feedback from other workshop participants. In addition, we welcome modelers to discuss use of observations for model-data comparisons, and associated questions and challenges for model validation. *We encourage hands-on demonstrations and presentations by students.*

Contacts: Susan Nossal (nossal@physics.wisc.edu) and Don Hampton (dhampton@gi.alaska.edu)

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Vince Wickwar: Interpretation (or is it Calibration) of Rayleigh-Scatter Lidar Signals

John Meriwether: Problems in interpreting mesospheric green line FPI measurements to infer mesospheric winds and temperatures

Chhavi Goenka: Liquid Crystal Hyperspectral Imager (LiCHI) - a versatile imager for remote sensing

Tom Slanger: CESAR, the new echelle spectrograph at Poker Flat

Derek Gardner: First Hα Airglow Temperature Observations using Field-Widened Spatial Heterodyne Spectroscopy.

John Meriwether: Anomalous equatorial vertical winds

Other short updates from the audience:

Susan Nossal: Reanalysis of the Wisconsin long timeline hydrogen emission data set (time permitting)

Discussion

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Discussion including the following starting questions:

What unresolved calibration and data analysis challenges are inhibiting our abilities to optimally address key science questions?

What approaches can be used to improve characterization of data errors?

Which measurements would be helpful to address key scientific questions and validate models?

Planning for future optical observation, calibration, and data analysis workshops: key topics including calibration needed for Grand Challenge topics