

Pyranometer Calibration Course

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Input data

- One excel sheet (pyrano_sample_data.xls)
 - Direct reference
 - [year, month, day, daypart, W/m^2]
 - Diffuse reference (horizontal diffuse)
 - [year, month, day, daypart, W/m^2]
 - Pyranometer
 - [year, month, day, daypart, zenith angle, Pyranometer μV]

Steps to follow

- Align time
 - Make sure same time stamp for all data set-set
- Calculate Global Reference
 - Horizontal component of direct irradiance + Global
- Use Global Horizontal reference irradiance and calculate the responsivity value for the pyranometer under test according to ISO 9846.
 - Reject irradiance below 700 W/m^2
 - Reject outlayers
 - Define start and duration/readings per serie

Final result

- Determine for each day
 - Time of start and end of the series
 - Number of series
 - Number of readings
 - Daily Responsivity
 - Daily Standard Deviation
- Calculate final Responsivity of Pyranometer under Test