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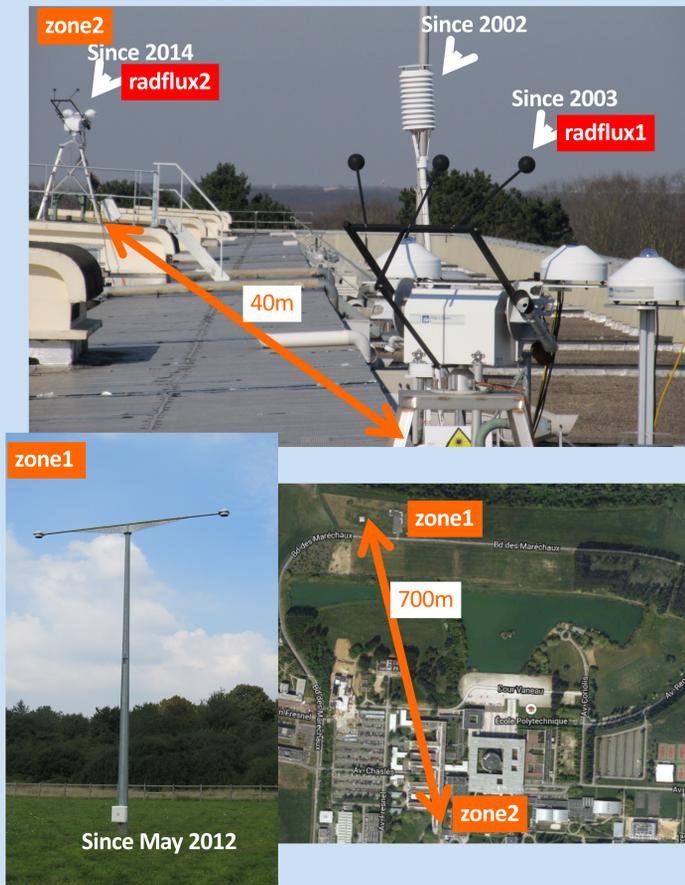
## BSRN installation at SIRTA

SIRTA observatory contributes in BSRN since 2003 (Station: PAL)  
Data submitted at the date to BSRN covers the period Jun2003-Jun2018. Current available parameters are:

- SWDn (DIF, DIR, GLO), LWDn
- Air temperature, RH, pressure

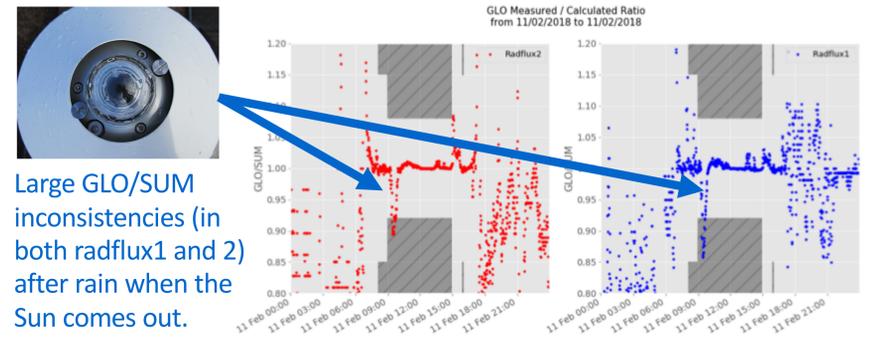
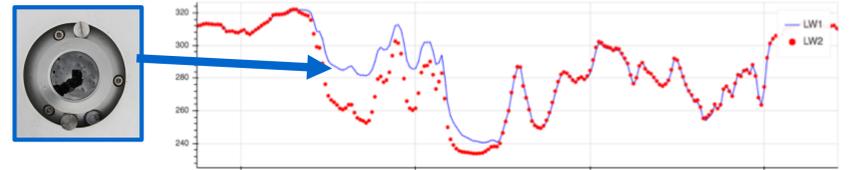
In 2012, a 10m mast was installed at SIRTA's zone1 (700m ) with SWDn, SWUp, LWDn and LWUp measurements.

In 2014, the SWDn(DIF, DIR, GLO) and LWDn measurements were duplicated so to replace the existing ones in order to ensure the quality (due a crane installation nearby).



## Case examples of inconsistencies found

Water on the pyrgeometer dome creates a positive measurement offset

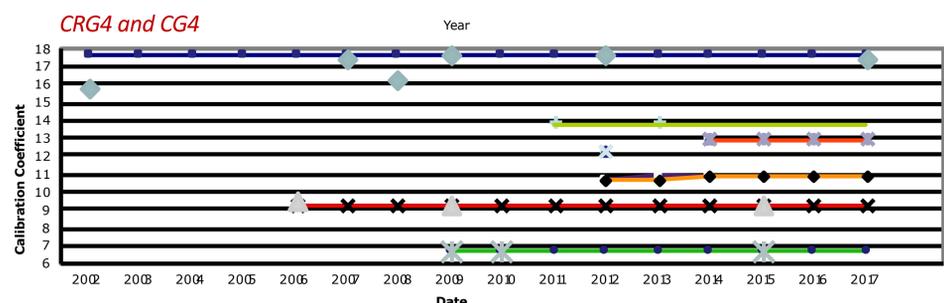
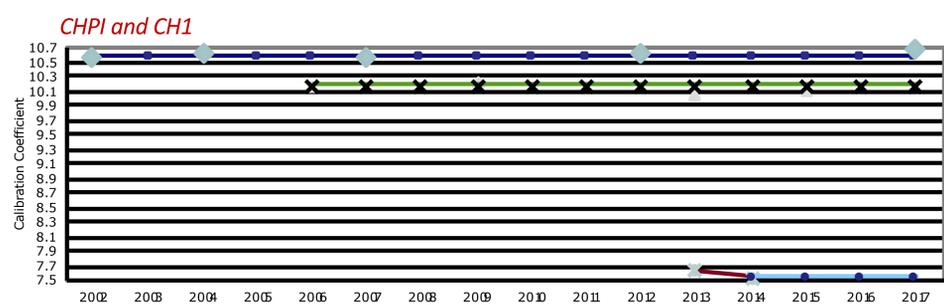
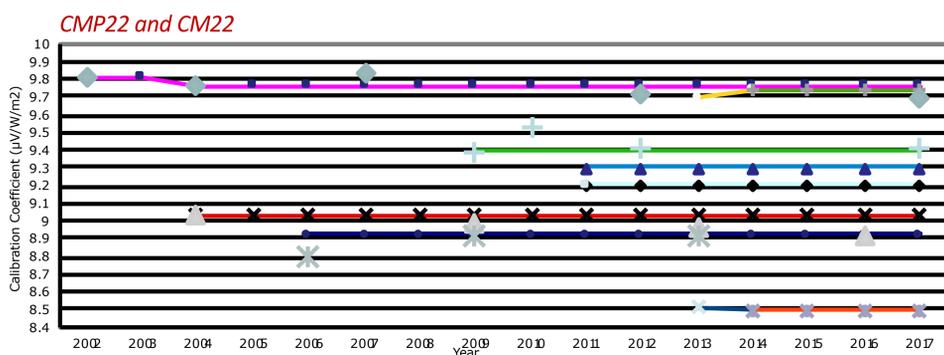


Water condensation on the window of the radflux2 pyrhelometer, not seen for radflux1



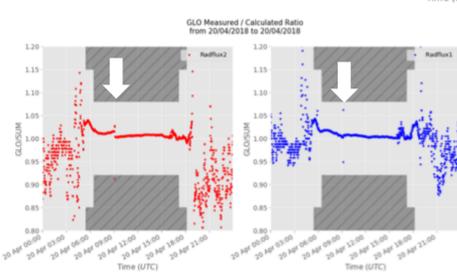
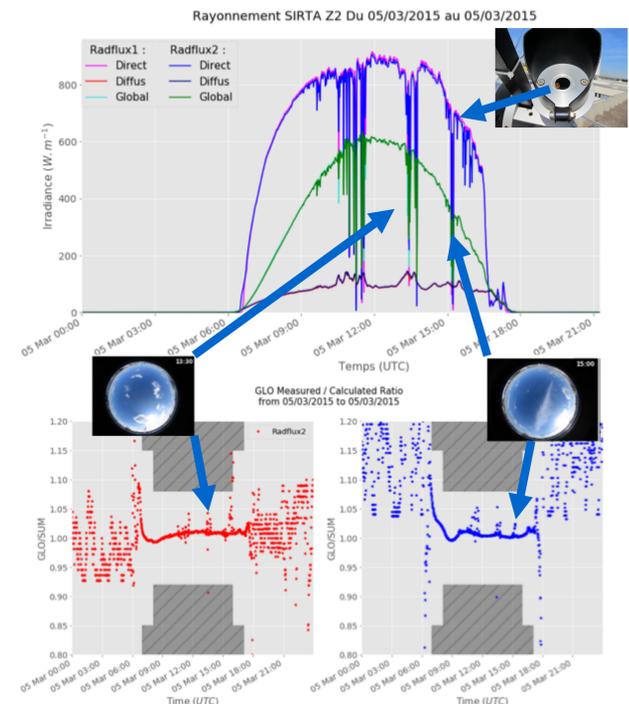
## Calibration coefficients evolution

Calibration coefficients certified from PMOD are shown below over time as well as the coefficients that actually used for all instruments. First calibration coefficient available was given by the manufacturer.



Situations with broken clouds, with brightness changes on the circumsolar region, might lead to GLO/SUM inconsistencies.

On this day, around 15h, there was a small animal (probably a ladybug) on the window of the pyrhelometer of radflux2.



Dome cleaning usually creates spikes in LWDn an GLO/SUM inconsistencies. In this example, it also shows the soiling effect on radflux2. After cleaning, time is shown with the arrows, GHI increased by about 1%.

Bird sitting on the instrument domes creates large spikes in LWDn or large GLO/SUM inconsistencies

