

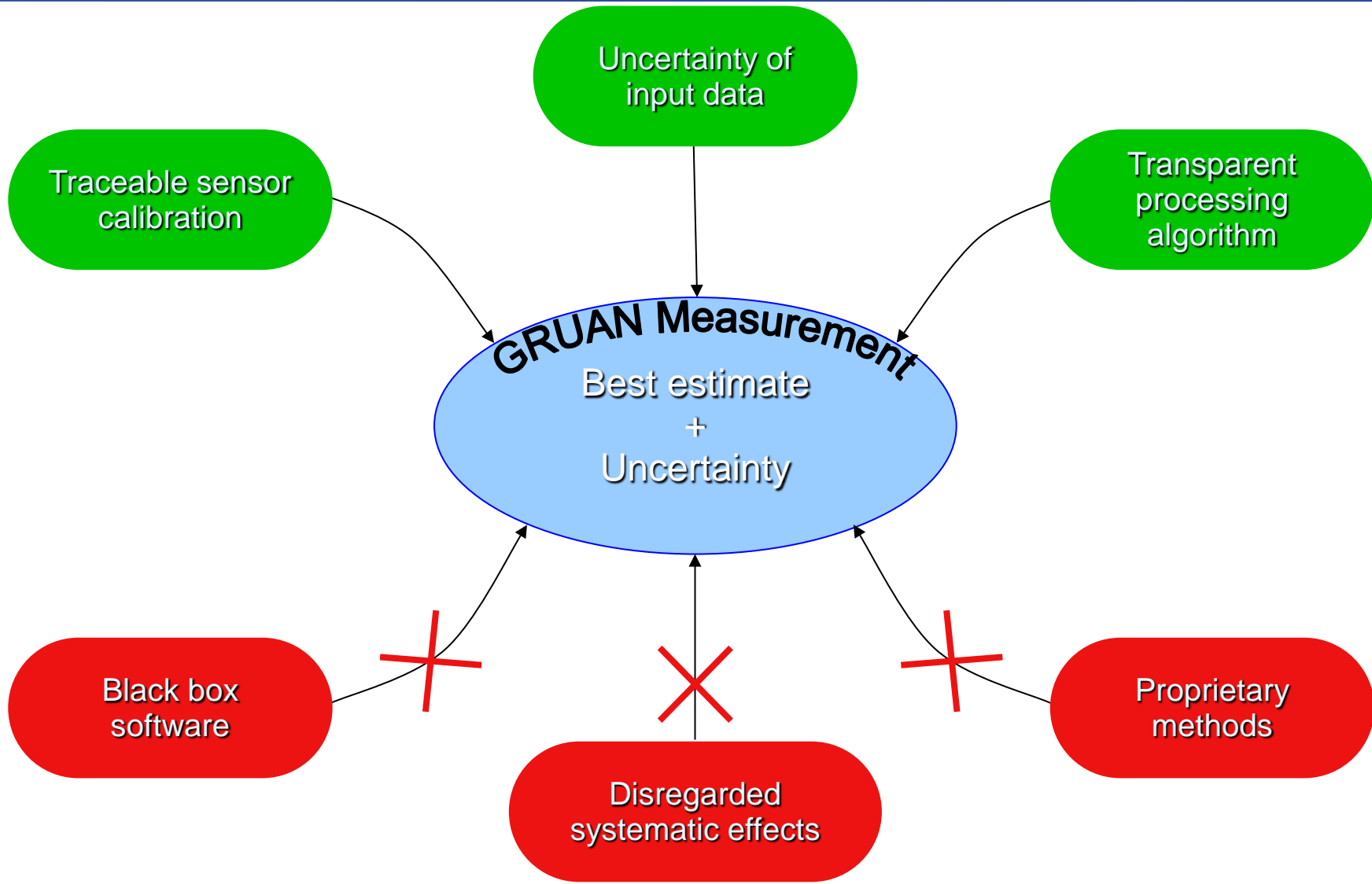


Steps needed for a GRUAN data product

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11th GRUAN Implementation and Coordination Meeting (ICM-11)
Singapore
May 2019

Reference data product - recap





**GCOS
Reference
Upper-
Air
Network**

GRUAN Technical Note 4

**Guidelines on requirements for the initial development
of a GRUAN data product**

PETER THORNE

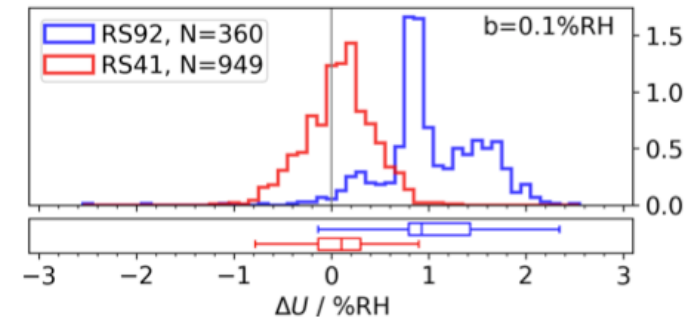
- A GRUAN Technical Document describing
 - measurement principles
 - measurement technique specifications
 - uncertainty quantification
 - correction algorithms
 - metadata

- A peer reviewed paper (submitted/published) that describes the scientific foundation for the data product
 - emphasis on the uncertainty quantification

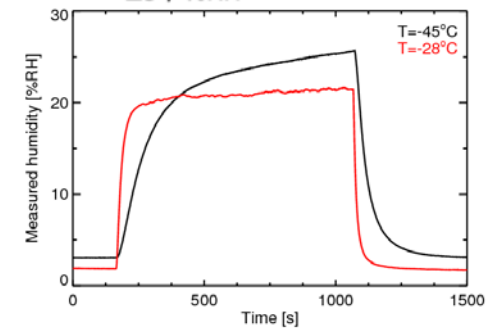
- A central data processing facility
 - At LC or external

- Measurement system (ready to be) adopted at one GRUAN site, and potentially deployed at other sites.
- Data stream (beta release) for a limited period
 - Verify & validate data product

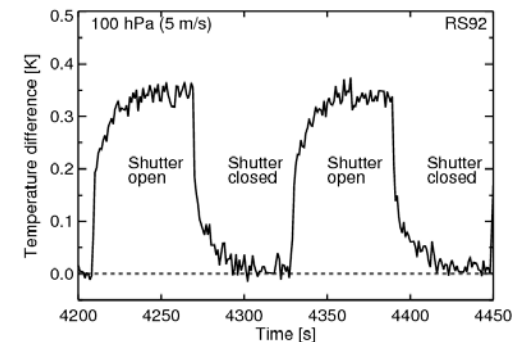
PTU



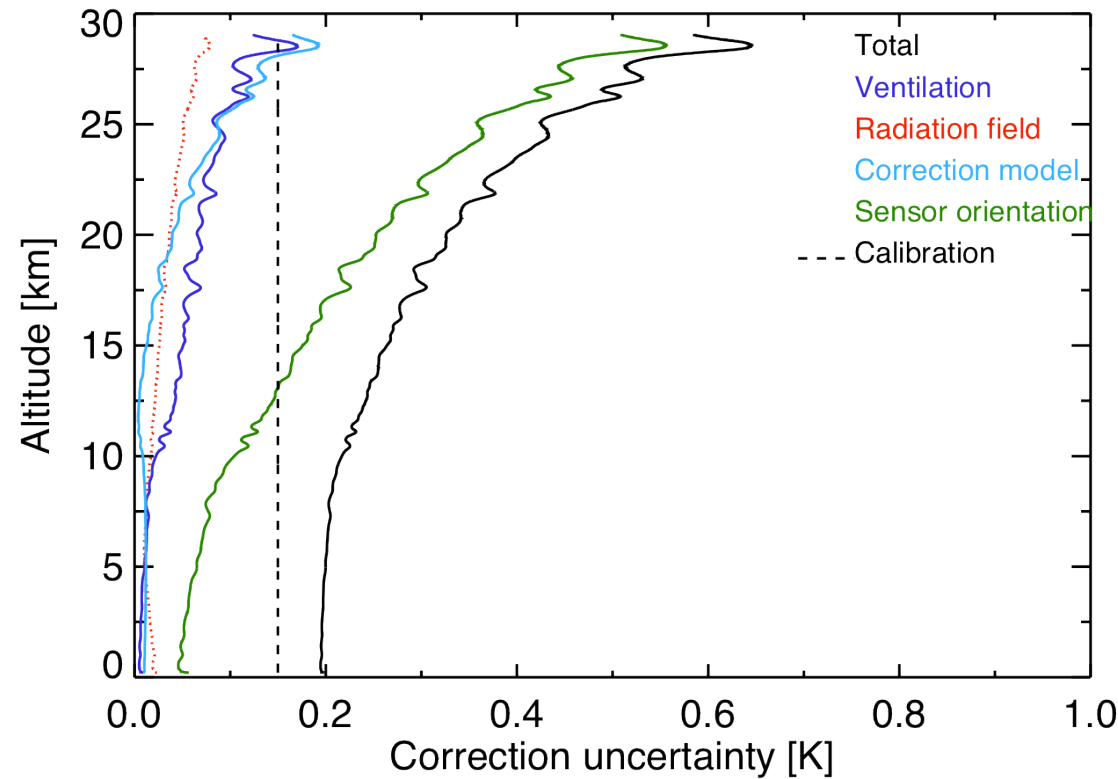
Climate chamber



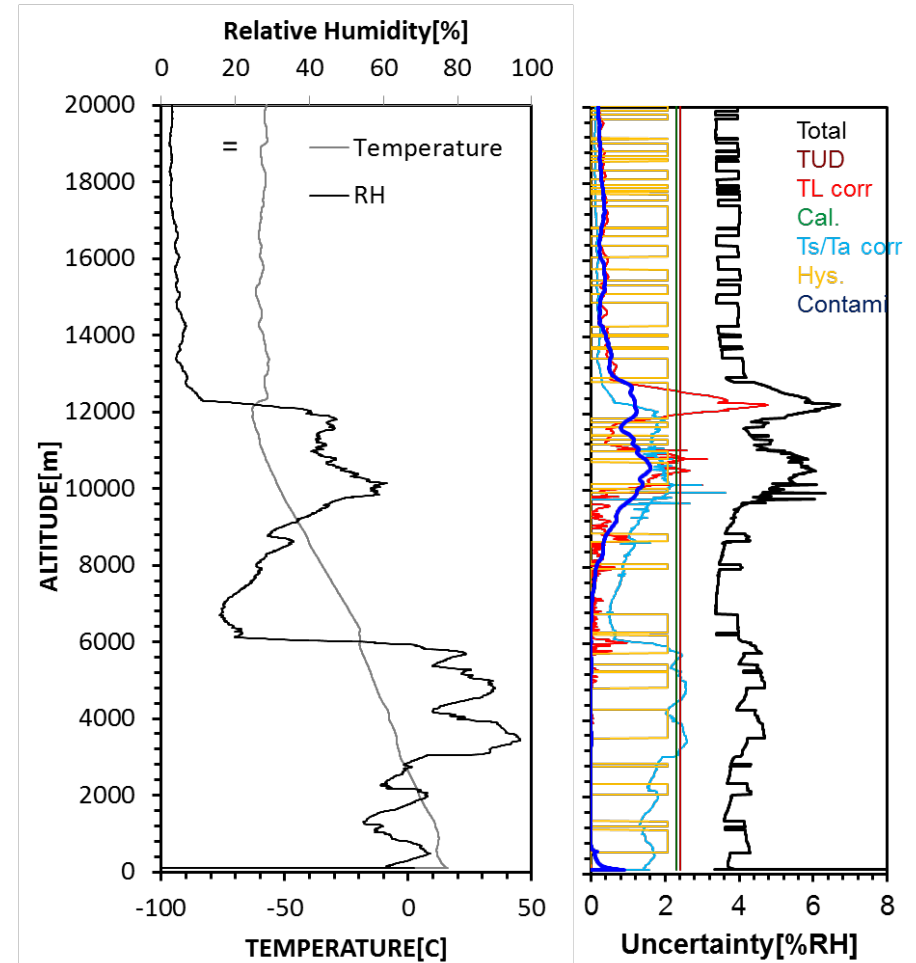
Radiation



Uncertainty estimate



RS92; from Dirksen AMT2014



RS-11G; from GRUAN-TD-5

