

Home

Online Library ACP

- ▣ Recent Final Revised Papers
- ▣ [Volumes and Issues](#)
- ▣ Special Issues
- ▣ Library Search
- ▣ Title and Author Search

Online Library ACPD

Alerts & RSS Feeds

General Information

Submission

Review

Production

Subscription

Comment on a Paper



▣ [Volumes and Issues](#) ▣ [Contents of Issue 12](#) ▣ [Special Issue](#)

Atmos. Chem. Phys., 6, 4311-4320, 2006

[www.atmos-chem-phys.net/6/4311/2006/](http://www.atmos-chem-phys.net/6/4311/2006/)

© Author(s) 2006. This work is licensed under a Creative Commons License.

## Validation of remotely sensed profiles of atmospheric state variables: strategies and terminology

T. von Clarmann

Forschungszentrum Karlsruhe, Institut für Meteorologie und Klimaforschung, Karlsruhe, Germany

**Abstract.** This paper summarizes and classifies the various approaches to validation of remote measurements of atmospheric state variables, and tries to recommend a clear and unambiguous terminology. The following approaches have been identified: Intercomparison of individual profiles for accuracy validation; statistical comparison of matched pairs of measurements with respect to bias determination and precision validation; statistical intercomparison of randomly sampled measurements by two instruments, and comparison of a single measurement to an ensemble of measurements. Applicable statistics are shortly reviewed, and recipes for evaluation of the co-incidence error due to less than perfect co-incidences are presented. An approach is suggested to quantitatively validate profile measurements when full covariance matrices are unavailable.

▣ [Final Revised Paper](#) (PDF, 238 KB) ▣ [Discussion Paper](#) (ACPD)

Citation: von Clarmann, T.: Validation of remotely sensed profiles of atmospheric state variables: strategies and terminology, Atmos. Chem. Phys., 6, 4311-4320, 2006. ▣ [Bibtex](#) ▣ [EndNote](#) ▣ [Reference Manager](#)



Search ACP

Library Search

Author Search

News

- ▣ [Sister Journals AMT & GMD](#)
- ▣ [Financial Support for Authors](#)
- ▣ [Journal Impact Factor](#)
- ▣ [Public Relations & Background Information](#)

Recent Papers

01 | ACPD, 15 Jan 2009: Kinetic modeling of nucleation experiments involving SO<sub>2</sub> and OH: new insights into the underlying nucleation mechanisms

02 | ACPD, 15 Jan 2009: Comparisons of WRF/Chem simulations in Mexico City with ground-based RAMA measurements during the MILAGRO-2006 period

03 | ACPD, 15 Jan 2009: Technical Note: In-situ quantification of aerosol sources and sinks over regional geographical scales