

List of Publications

Diploma and PhD Thesis'

Scheirer, R., 1998: Bestimmung von Feuchteprofilen mit Neuronalen Netzen aus simulierten AMSU Daten, Kiel, Christian-Albrechts-Universität, 105pp., Diploma Thesis (in german).

Scheirer, R., 2001: Solarer Strahlungstransport in der inhomogenen Atmosphäre, Kiel, Christian-Albrechts-Universität, Dissertation (in german), (Berichte aus dem Institut für Meereskunde an der Christian-Albrechts-Universität Kiel Bd. **322**), 123pp., ISSN 0341-8561.

Book Reviews

Scheirer, R., 2005: Walch, D., H. Frater (Hrsg.): Wetter und Klima - Das Spiel der Elemente - Atmosphärische Prozesse verstehen und deuten. Springer Verlag Heidelberg etc., 2004, in: Meteorol. Z., **14**, 100.

Scheirer, R., 2006: Müller, P., and H. von Storch: Computer Modelling in Atmospheric and Oceanic Sciences. Springer Verlag Heidelberg etc., 2004, in: Meteorol. Z., **15**, 682-683.

Peer-Reviewed Articles

Scheirer, R., and A. Macke, 2000: Influence of the gaseous atmosphere on solar fluxes of inhomogeneous clouds, *Phys. Chem. Earth (B)*, **25(2)**, 73-76.

Scheirer, R., and A. Macke, 2001: On the accuracy of the independent column approximation in calculating the downward fluxes in the UVA, UVB and PAR spectral ranges, *J. Geophys. Res.*, **106(D13)**, 14301-14312.

Scheirer, R., and A. Macke, 2003: Cloud inhomogeneity and broadband solar flux, *J. Geophys. Res.*, **108(D19)**, 4599, doi:10.1029/2002JD003321.

Scheirer, R., and S. Schmidt, 2004: CLABAUTAIR: A new algorithm for retrieving three-dimensional cloud structure from airborne microphysical measurements, *Atmos. Chem. Phys.*, **5**, 2333-2340.

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Schmidt, S., V. Venema, F. Di Giuseppe, R. Scheirer, M. Wendisch, and P. Pilewskie, 2007: Reproducing Cloud Microphysical and Irradiance Measurements Using three 3D Cloud Generators, *Quart. J. Roy. Met. Soc.*, **133(624)**, 765-780.

Thiel, S., L. Ammannato, A. Bais, B. Bandy, M. Blumthaler, B. Bohn, O. Engelsen, G. P. Gobbi, J. Gröbner, E. Jäkel, W. Junkermann, S. Kazadzis, R. Kift, B. Kjelstad, N. Kouremeti, A. Kylling, B. Mayer, P. S. Monks, C. E. Reeves, B. Schallhart, R. Scheirer, S. Schmidt, R. Schmitt, J. Schreder, R. Silbernagl, C. Topaloglou, T. M. Thorseth, A. R. Webb, M. Wendisch, and P. Werle, 2008: Influence of clouds on the spectral actinic flux density in the lower troposphere (INSPECTRO): overview of the field campaigns, *Atmos. Chem. Phys.*, **8**, 1789-1812.

Stengel, M., S. Mieruch, M. Jerg, K.-G. Karlsson, R. Scheirer, B. Maddux, J.F. Meirink, C. Poulsen, R. Siddans, A. Walther, R. Hollmann, 2013: The Clouds Climate Change Initiative: The assessment of state of the art cloud property retrieval systems applied to AVHRR heritage measurements, *Rem. Sens. Env.*, **162**, 363-379.

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- Scheirer, R., and A. Macke, 2001: On the accuracy of the independent pixel approximation in 3d radiative transfer, in: Smith, W.L.; Timofeyev, Y.M. (Hrsg.): *IRS 2000: Current Problems in Atmospheric Radiation*. Hampton, Virginia: A. Deepak Publishing, 229-232.
- Macke, A., I. Schlimme, and R. Scheirer, 2002: Uncertainties in solar radiative fluxes of cirrus clouds due to natural variability in cloud microphysical properties, in: *11th AMS Conference on Cloud Physics*, Ogden, USA, 3-7 June, 2002.
- Macke, A., and R. Scheirer, 2002: Enhanced absorption of solar radiation by 3d mixed phase clouds, in: *11th AMS Conference on Cloud Physics*, Ogden, USA, 3-7 June, 2002.
- Scheirer, R., and S. Schmidt, 2004: Retrieving Inhomogeneous Clouds, in: *ICCP 2004: 14th international conference on clouds and precipitation*. Bologna, Italy, 19-23 July, 1412-1415.
- Kniffka, A., S. Gimeno-Garcia, E. Jaekel, S. Schmidt, M. Wendisch, R. Scheirer, and T. Trautmann, 2005: SIMULATIONS OF SPECTRAL ACTINIC FLUX DENSITY FIELDS IN SCATTERED AND OVERCAST CLOUD CONDITIONS: COMPARISON WITH INSPECTRO AIRCRAFT MEASUREMENTS, in: Fischer, H.; Sohn, B.-J. (Eds.): *IRS'2004: Current Problems in Atmospheric Radiation*. Hampton, Virginia: A. Deepak Publishing, 51-54.
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