

- Gehlot, S. and J. Quaas, Convection-climate feedbacks in ECHAM5 general circulation model: A Lagrangian trajectory perspective of cirrus cloud life cycle, *J. Clim.*, in press.
- Nam, C. and J. Quaas, Evaluation of clouds and precipitation in the ECHAM5 general circulation model using CALIPSO and CloudSat, *J. Clim.*, doi 10.1175/JCLI-D-11-00347.1, 2012.
- Cherian, R., C. Venkataraman, S. Ramachandran, J. Quaas, and S. Kedia, Examination of aerosol distributions and radiative effects over the Bay of Bengal and the Arabian Sea region during ICARB using satellite data and a general circulation model, *Atmos. Chem. Phys.*, 12, 1287–1305, doi 10.5194/acp-12-1287-2012, 2012.
- Peters, K., J. Quaas, and H. Graßl, A search for large-scale effects of ship emissions on clouds and radiation in satellite data, *J. Geophys. Res.*, doi 10.1029/2011JD016531, this paper was highlighted as "research highlight" by Nature Climate Change, 27 Jan 2012, 2011.
- Quaas, J., O. Boucher, N. Bellouin, and S. Kinne, Which of satellite- or model-based estimates is closer to reality for aerosol indirect forcing? - Reply to Penner et al., *Proc. Nat. Acad. Sci. USA*, doi 10.1073/pnas.1114634108, 2011.
- Klocke, D., R. Pincus, and J. Quaas, On constraining estimates of climate sensitivity with present-day observations through model weighting, *J. Clim.*, 24, 6092–6099, doi 10.1175/2011JCLI4193.1, 2011.
- Weber, T., J. Quaas, and P. Räisänen, Evaluation of the subgrid-scale variability scheme for water vapor and cloud condensate in the ECHAM5 model using satellite data, *Quart. J. Royal Meteorol. Soc.*, 137, 2079–2091, doi 10.1002/qj.887, 2011.
- Peters, K., J. Quaas, and N. Bellouin, Effects of absorbing aerosols in cloudy skies: A satellite study over the Atlantic Ocean, *Atmos. Chem. Phys.*, 11, 1393–1404, doi doi:10.5194/acp-11-1393-2011, 2011.
- Koch, D., Y. Balkanski, S. E. Bauer, R. C. Easter, S. Ferrachat, S. J. Ghan, C. Hoose, T. Iversen, A. Kirkevåg, J. E. Kristjánsson, X. Liu, U. Lohmann, S. Menon, J. Quaas, M. Schulz, Ø. Seland, T. Takemura, and N. Yan, Soot microphysical effects on liquid clouds, a multi-model investigation, *Atmos. Chem. Phys.*, 11, 1051–1064, 2011.
- Kazil, J., P. Stier, K. Zhang, J. Quaas, S. Kinne, D. O'Donnell, S. Rast, M. Esch, S. Ferrachat, U. Lohmann, and J. Feichter, Aerosol nucleation and its role for clouds and Earth's radiative forcing in the aerosol-climate model ECHAM5-HAM, *Atmos. Chem. Phys.*, 10, 10733–10752, doi 10.5194/acp-10-10733-2010, 2010.
- Quaas, J., B. Stevens, U. Lohmann, and P. Stier, Interpreting the cloud cover - aerosol optical depth relationship found in satellite data using a general circulation model, *Atmos. Chem. Phys.*, 10, 6129–6135, 2010.
- Kuhlmann, J. and J. Quaas, How can aerosols affect the Asian summer monsoon? Assessment during three consecutive pre-monsoon seasons from CALIPSO satellite data, *Atmos. Chem. Phys.*, 10, 4673–4688, 2010.
- Lohmann, U., L. Rotstayn, T. Storelvmo, A. Jones, S. Menon, J. Quaas, A. Ekman, D. Koch, and R. Ruedy, Total aerosol effect: forcing or radiative flux perturbation, *Atmos. Chem. Phys.*, 10, 3235–3246, 2010.
- Quaas, J., Y. Ming, S. Menon, T. Takemura, M. Wang, J. Penner, A. Gettelman, U. Lohmann, N. Bellouin, O. Boucher, A. M. Sayer, G. E. Thomas, A. McComiskey, G. Feingold, C. Hoose, J. E. Kristjánsson, X. Liu, Y. Balkanski, L. J. Donner, P. A. Ginoux, P. Stier, B. Grandey, J. Feichter, I. Sednev, S. E. Bauer, D. Koch, R. G. Grainger, A. Kirkevåg, T. Iversen, Ø. Seland, R. Easter, S. J. Ghan, P. J. Rasch, H. Morrison, J.-F. Lamarque, M. J. Iacono, S. Kinne, and M. Schulz, Aerosol indirect effects - general circulation model intercomparison and evaluation with satellite data, *Atmos. Chem. Phys.*, 9, 8697–8717, 2009.
- Quaas, J., O. Boucher, A. Jones, G. P. Weedon, J. Kieser, and H. Joos, Exploiting the weekly cycle as observed over Europe to analyse aerosol indirect effects in two climate models, *Atmos. Chem. Phys.*, 9, 8493–8501, 2009.
- Jones, T., S. Christopher, and J. Quaas, A six year satellite-based assessment of the regional variations in aerosol indirect effects, *Atmos. Chem. Phys.*, 9, 4091–4114, 2009.
- Quaas, J., O. Boucher, N. Bellouin, and S. Kinne, Satellite-based estimate of the direct and indirect aerosol climate forcing, *J. Geophys. Res.*, 113(D05204), doi 10.1029/2007JD008962, 2008.
- Lohmann, U., J. Quaas, S. Kinne, and J. Feichter, Different approaches for constraining global climate models of the anthropogenic indirect aerosol effect, *Bull. Am. Meteorol. Soc.*, 88, 243–249, 2007.

Penner, J., J. Quaas, T. Storelvmo, T. Takemura, O. Boucher, H. Guo, A. Kirkevåg, J. E. Kristjansson, and Ø. Seland, Model intercomparison of indirect aerosol effects, *Atmos. Chem. Phys.*, 6, 3391–3405, 2006.

Ringer, M. A., B. J. McAvaney, N. Andronova, L. E. Buja, M. Esch, W. J. Ingram, B. Li, J. Quaas, E. Roeckner, C. A. Senior, B. J. Soden, E. M. Volodin, M. J., and K. D. Williams, Global mean cloud feedbacks in idealized climate change experiments, *Geophys. Res. Lett.*, 33(L07718), doi 10.1029/2005GL025370, 2006.

Quaas, J., O. Boucher, and U. Lohmann, Constraining the total aerosol indirect effect in the LMDZ and ECHAM4 GCMs using MODIS satellite data, *Atmos. Chem. Phys.*, 6, 947–955, 2006.

Dufresne, J.-L., J. Quaas, O. Boucher, S. Denvil, and L. Fairhead, Contrast of the climate effects of anthropogenic sulfate aerosols between the 20th and 21st century, *Geophys. Res. Lett.*, 32(L21703), doi 10.1029/2005GL023619, 2005.

Quaas, J. and O. Boucher, Constraining the first aerosol indirect radiative forcing in the LMDZ GCM using POLDER and MODIS satellite data, *Geophys. Res. Lett.*, 32(L17814), doi 10.1029/2005GL023850, 2005.

Quaas, J., O. Boucher, J.-L. Dufresne, and H. Le Treut, Impacts of greenhouse gases and aerosol direct and indirect effects on clouds and radiation in atmospheric GCM simulations of the 1930 - 1989 period, *Clim. Dyn.*, 23, doi 10.1007/s00382-004-0475-0, 2004.

Quaas, J., O. Boucher, and F.-M. Bréon, Aerosol indirect effects in POLDER satellite data and in the Laboratoire de Météorologie Dynamique-Zoom (LMDZ) general circulation model, *J. Geophys. Res.*, 109(D08205), doi 10.1029/2003JD004317, 2004.

Doutriaux-Boucher, M. and J. Quaas, Evaluation of cloud thermodynamic phase parameterizations in the LMDZ GCM by using POLDER satellite data, *Geophys. Res. Lett.*, 31(L06126), doi 10.1029/2003GL019095, 2004.

Menon, S., J.-L. Brenguier, O. Boucher, P. Davison, A. D. Del Genio, J. Feichter, S. Ghan, S. Guibert, X. Liu, U. Lohmann, H. Pawlowska, J. E. Penner, J. Quaas, D. L. Roberts, L. Schüller, and J. Snider, Evaluating aerosol/cloud/radiation process parameterizations with single column models and Second Aerosol Characterization Experiment (ACE-2) cloudy column observations, *J. Geophys. Res.*, 108(4762), doi 10.1029/2003JD003902, 2003.

---

## JOURNAL PUBLICATIONS IN PREPARATION

Devasthale, A., K. Karlsson, J. Quaas, and H. Grassl, Correcting orbital drift signal in the time series of AVHRR derived convective cloud fraction using rotated empirical orthogonal function, *Atmos. Meas. Tech. Discuss.*, 4, 3877–3890, doi 10.5194/amtd-4-3877-2011, 2011.

Quaas, J., Evaluating the "critical relative humidity" as a measure of subgrid-scale variability of humidity in general circulation model cloud cover parameterizations using satellite data, *J. Geophys. Res.*, revised.

Cherian, R., C. Venkataraman, J. Quaas, and S. Ramachandran, GCM simulations of aerosol extinction, heating and effects on precipitation over India, *Clim. Dyn.*, in revision.

Zygmuntowska, M., T. Mauritsen, J. Quaas, and L. Kaleschke, Arctic clouds and surface radiation - a critical comparison of satellite retrievals and the ERA-INTERIM reanalysis, *Atmos. Chem. Phys. Discuss.*, 11, 31495–31522, doi 10.5194/acpd-11-31495-2011, 2011.

Sanchez-Lorenzo, A., P. Laux, H.-J. Hendricks-Franssen, J. Calbó, S. Vogl, A. Georgoulias, and J. Quaas, Assessing large-scale weekly cycles in meteorological variables: a review, *Atmos. Chem. Phys. Discuss.*, 12, 1451–1491, doi 10.5194/acpd-12-1451-2012, 2012.

Rennó, N. O., E. Williams, D. Rosenfeld, D. G. Fischer, J. Fischer, T. Kremling, A. Agrawal, M. O. Andreae, R. Bierbaum, R. Blakeslee, A. Boerner, N. Bowles, H. Christian, J. Dunion, Á. Horváth, X. Huang, A. Khain, S. Kinne, M. C. Lemos, J. Penner, U. Pöschl, J. Quaas, E. Seran, B. Stevens, T. Walati, and T. Wagner, CHASER: An Innovative Satellite Mission Concept to Measure the Effects of Aerosols on Clouds and Climate, *Bull. Am. Meteorol. Soc.*, submitted.

Boucher, O. and J. Quaas, Water vapour affects both rain and aerosol optical depth, *Nature Geoscience*, submitted.

Zhang, K., D. O'Donnell, J. Kazil, J. Feichter, P. Stier, S. Kinne, U. Lohmann, S. Ferrachat, B. Croft, J. Quaas, H. Wan, S. Rast, and M. Esch, The global aerosol-climate model ECHAM5-HAM, version 2: model evaluation and sensitivity tests, *Atmos. Chem. Phys.*, submitted.

Peters, K., P. Stier, J. Quaas, and H. Graßl, Aerosol indirect effects from shipping emissions: Sensitivity studies with the global aerosol-climate model ECHAM-HAM, *Atmos. Chem. Phys.*, submitted.

Weber, T. and J. Quaas, Incorporating the subgrid-scale variability of cloud liquid water in the autoconversion process in warm clouds, *Atmos. Chem. Phys.*, in preparation.

Klocke, D., J. Quaas, M. Giorgetta, and B. Stevens, Assessment of different feedback metrics, *JAMES*, in preparation.

---

## PEER-REVIEWED BOOK CHAPTERS AND THESES

Quaas, J., Aerosol direct and indirect climate forcings – Clues from satellite data and global modeling, T. Nakajima and M. A. Yamasoe (eds.), *Current problems in atmospheric radiation (IRS 2008): Proceedings of the International Radiation Symposium (IRC/IAMAS)*, vol. 1100, pp. 573–576, AIP Conf. Proc., doi 10.1063/1.3117050, 2009.

Quaas, J., S. Bony, W. D. Collins, L. Donner, A. J. Illingworth, A. Jones, U. Lohmann, M. Satoh, S. E. Schwartz, W.-K. Tao, and R. Wood, Current understanding and quantification of clouds in the changing climate system and strategies for reducing critical uncertainties, J. Heintzenberg and R. J. Charlson (eds.), *Clouds in the Perturbed Climate System. Proceedings Ernst Strüngmann Forum*, p. 576, MIT press, Cambridge, ISBN 978-0-262-01287-4, 2009.

Quaas, J., O. Boucher, and U. Lohmann, Aerosol-cloud-climate interactions: Climate modelling and satellite observations, M. Maione and S. Fuzzi (eds.), *Atmospheric Composition Change - Causes and Consequences - Local to Global*, p. 196, Aracne editrice S.r.l., ISBN 978-88-548-2268-9, 2009.

Denman, K. L., G. Brasseur, A. Chidthaisong, P. Ciais, P. Cox, R. Dickinson, D. Hauglustaine, C. Heinze, E. Holland, D. Jacob, U. Lohmann, S. Ramachandran, P. da Silva Dias, S. Wofsy, and X. Zhang, Couplings Between Changes in the Climate System and Biogeochemistry, S. Solomon, D. Qin, M. Manning, Z. Chen, M. Marquis, K. Averyt, M. Tignor, and H. Miller (eds.), *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, pp. 499–587, Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, (contributing author), 2007.

Quaas, J., *The aerosol indirect effect: Parameterization in large-scale models and evaluation with satellite data.*, Ph.D. thesis, École Polytechnique, Paris, France, (partially in French), 2003.

Joppich, W. and J. Quaas, Coupling General Circulation Models on a Meta-Computer, P. M. A. Sloot, D. Abramson, A. V. Bogdanov, J. Dongarra, A. Y. Zomaya, and Y. E. Gorbachev (eds.), *Proceedings of the International Conference on Computational Science, Part II*, vol. 2658 of *Lecture Notes in Computer Science*, pp. 161–170, Springer Verlag, Heidelberg, ISBN 3-540-40195-4, 2003.

Quaas, J., *Kopplung eines Atmosphärenmodells und eines Ozeanmodells auf einem Meta-Computer*, Master's thesis, Institut für Geophysik und Meteorologie der Universität zu Köln, (in German), 2000.

---

## CONFERENCE CONTRIBUTIONS

Quaas, J., Evaluating the critical relative humidity as a measure of subgrid-scale variability of humidity cloud cover parameterizations, *16th International Conference on Clouds and Precipitation*, Leipzig, 30 July - 3 August 2012.

Peters, K., P. Stier, J. Quaas, and H. Grassl, Modeling aerosol indirect effects from shipping emissions in ECHAM5-HAM, *16th International Conference on Clouds and Precipitation*, Leipzig, 30 July - 3 August 2012.

Schemann, V., B. Stevens, V. Grützun, and J. Quaas, Scale (in)dependency of statistical cloud cover parametrizations, *16th International Conference on Clouds and Precipitation*, Leipzig, 30 July - 3 August 2012.

Salzmann, M., J. Quaas, C. Nam, and B. Stevens, Cloud Evaluation and Feedbacks in the new Max Planck Institute Earth System Model (MPI-ESM), *16th International Conference on Clouds and Precipitation*, Leipzig, 30 July - 3 August 2012.

Grützun, V., F. Ament, O. Henneberg, and J. Quaas, Evaluating statistical cloud schemes - what can we gain from ground based remote sensing?, *16th International Conference on Clouds and Precipitation*, Leipzig, 30 July - 3 August 2012.

Schemann, V., B. Stevens, V. Grützun, and J. Quaas, Towards a scale (in)dependency of statistical cloud cover parametrizations, *EGU General Assembly*, Vienna, 22 - 27 April 2012.

Rennó, N. O., E. Williams, D. Rosenfeld, D. G. Fischer, J. Fischer, T. Kremer, A. Agrawal, M. O. Andreae, R. Bierbaum, R. Blakeslee, A. Boerner, N. Bowles, H. Christian, J. Dunion, Á. Horváth, X. Huang, A. Khain, S. Kinne, M. C. Lemos, J. Penner, U. Pöschl, J. Quaas, E. Seran, B. Stevens, T. Walati, and T. Wagner, CHASER: An Innovative Satellite Mission Concept to Measure the Effects of Aerosols on Clouds and Climate, *EGU General Assembly*, Vienna, 22 - 27 April 2012.

Sanchez-Lorenzo, A., P. Laux, H. Hendricks-Franssen, A. Georgoulias, J. Calbó, S. Vogl, and J. Quaas, A review of large-scale weekly cycles of meteorological quantities, *11th International Conference on Meteorology, Climatology and Atmospheric Physics COMECAP*, Athens, 30 May - 1 June 2012.

Peters, K., J. Quaas, I. Sandu, B. Stevens, and H. Grassl, Ship Emission Influence on Clouds: A Study using ATSR-2 retrieved Cloud Properties, *ESA Living Planet Symposium*, Bergen, 28 June - 2 July 2010.

Peters, K., J. Quaas, and H. Grassl, Ship emission influence on clouds: Analysis with satellite data, *Gordon Research Conference/Seminar*, Waterville, 9 - 15 July 2011.

Peters, K., J. Quaas, H. Grassl, and P. Stier, Ship emissions and their influence on large scale cloud fields, *Goldschmidt Conference*, Prague, 14-19 August 2011.

Quaas, J. and N. Bellouin, Estimating Aerosol Forcings Using the MACC Aerosol Reanalysis, *Goldschmidt Conference*, Prague, 15 - 19 August 2011.

Quaas, J., Using satellite data to understand aerosol-cloud relations in climate models and vice versa, *Gordon Research Conference on Radiation and Climate*, Waterville, invited presentation, 10 - 15 July 2011.

Quaas, J., The role of clouds in climate forcing and feedbacks, *Verhandlungen der Deutschen Physikalischen Gesellschaft*, Dresden, invited presentation, 13 - 18 March 2011.

Grützun, V., M. Voigt, F. Ament, and J. Quaas, Evaluating cloud schemes in global circulation models - what can we gain from ground based remote sensing and high resolution modeling?, *EGU General Assembly*, Vienna, 3 - 8 April 2011.

Schemann, V., V. Grützun, D. Popke, and J. Quaas, Evaluation of a statistical cloud parametrization for global climate models, *EGU General Assembly*, Vienna, 3 - 8 April 2011.

Weedon, G., O. Boucher, and J. Quaas, Detecting weekly cycles in model-derived and observation time series with Fourier-based techniques, *EGU General Assembly*, Vienna, invited presentation, 3 - 8 April 2011.

Gehlot, S. and J. Quaas, Convection-climate Feedbacks in the ECHAM5 General Circulation Model: A Lagrangian Trajectory Perspective of Detrainment Cirrus Cloud Life Cycle, *American Geophysical Union Fall Meeting*, San Francisco, 2010.

Nam, C., J. Quaas, E. Roeckner, R. Neggers, C. Siegenthaler - Le Drian, F. Isotta, and B. Stevens, Can cloud-climate-feedbacks be constrained by comparison of low-cloud parametrizations in the ECHAM5 GCM using CALIPSO and CloudSat Satellite data?, *American Geophysical Union Fall Meeting*, San Francisco, 2010.

Pinus, R., D. Klocke, and J. Quaas, Interpreting relationships between present-day fidelity and climate change projections, *American Geophysical Union Fall Meeting*, San Francisco, 2010.

Peters, K., J. Quaas, and P. Stier, Ship emission influence on clouds: Studies with the ECHAM5-HAM aerosol-climate model, *International Aerosol Conference*, Helsinki, 29 August - 3 September 2010.

Stier, P., R. West, B. Grandey, U. Lohmann, J. Quaas, and J. H. Seinfeld, Assessment of aerosol-cloud interactions employing parameterizations of various complexities, *11th Science Conference of the International Global Atmosphere Chemistry (IGAC) Project*, Halifax, 11 - 16 July 2010.

Lohmann, U., L. Rotstain, T. Storelvmo, A. Jones, S. Menon, J. Quaas, A. Ekman, D. Koch, and R. Ruedy, Total aerosol effect: radiative forcing or radiative flux perturbation?, *EGU General Assembly*, Vienna, 2 - 7 May 2010.

Peters, K., J. Quaas, and P. Stier, Ship emission influence on clouds: A sensitivity assessment of ECHAM5-HAM, *EGU General Assembly*, Vienna, 2 - 7 May 2010.

Grützun, V., J. Quaas, and F. Ament, Evaluation and improvement of the statistical cloud parameterization in ECHAM using statistics of ground-based remote sensing observations, *EGU General Assembly*, Vienna, 2 - 7 May 2010.

Gehlot, S. and J. Quaas, Transition of deep convective clouds to cirrus clouds in a GCM using Lagrangian trajectory analysis, *EGU General Assembly*, Vienna, 2 - 7 May 2010.

Weber, T. and J. Quaas, Incorporating the subgrid-scale variability of clouds in the autoconversion parameterization in a large-scale model, *EGU General Assembly*, Vienna, 2 - 7 May 2010.

Quaas, J., Evaluating aerosol-cloud-radiation interactions by combining observational data and large-scale models, *EGU General Assembly*, Vienna, invited presentation, 2 - 7 May 2010.

Schneider, N., M. Claussen, J. Quaas, and C. Reick, Analyse von Wolken- und Strahlungseigenschaften für verschiedene Vegetationen im brasilianischen Amazonasbecken, *8. Deutsche Klimatagung*, Bonn, 5 - 8 October 2009.

Stier, P., R. West, J. H. Seinfeld, U. Lohmann, and J. Quaas, Quantification of uncertainties associated with indirect aerosol effect parameterizations of various complexities, *IAMAS-IAPSO-IACS Joint Assembly*, Montreal, 19 - 29 July 2009.

Quaas, J., U. Lohmann, and P. Stier, Interpreting statistical relationships between cloud and aerosol quantities from satellite data using sensitivity studies with a general circulation model, *IAMAS-IAPSO-IACS Joint Assembly*, Montreal, 19 - 29 July 2009.

Nam, C. and J. Quaas, Implementation of the CALIPSO and CloudSat Satellite Simulator within the ECHAM5 GCM, *EGU General Assembly*, Vienna, 19 - 24 April 2009.

Gehlot, S. and J. Quaas, ECHAM5 sensitivity runs for analysis of deep convective clouds using ISCCP simulator, *EGU General Assembly*, Vienna, 19 - 24 April 2009.

Quaas, J., U. Lohmann, and P. Stier, Interpreting statistical relationships between cloud and aerosol quantities from satellite data using sensitivity studies with a general circulation model, *EGU General Assembly*, Vienna, 19 - 24 April 2009.

Stier, P., R. West, J. H. Seinfeld, U. Lohmann, and J. Quaas, Assessment of aerosol-cloud-precipitation interactions employing parameterizations of various complexities, *EGU General Assembly*, Vienna, 19 - 24 April 2009.

Weber, T. and J. Quaas, Evaluation of a statistical subgrid-scale variability scheme for water vapor and cloud condensate in a GCM using observational data, *EGU General Assembly*, Vienna, 19 - 24 April 2009.

Klocke, D., J. Quaas, and M. Giorgetta, Evaluating feedback factors in a GCM: focus on clouds, *EGU General Assembly*, Vienna, 19 - 24 April 2009.

Kuhlmann, J., J. Quaas, and A. Devasthale, Aerosol impact on the Asian Summer Monsoon observed by CALIPSO, *EGU General Assembly*, Vienna, 19 - 24 April 2009.

Devasthale, A., K.-G. Karlsson, J. Quaas, and H. Grassl, The rotated EOF analysis of convective cloud fraction over the Indian monsoon region, *EGU General Assembly*, Vienna, 19 - 24 April 2009.

Kazil, J., J. Quaas, S. Kinne, S. Rast, P. Stier, and J. Feichter, Sulfate aerosol nucleation, primary emissions, and cloud radiative forcing in the aerosol-climate model ECHAM5-HAM, *AGU Fall Meeting*, San Francisco, 15 - 19 December 2008.

Klocke, D., J. Quaas, and M. Giorgetta, Climate sensitivity related to cloud processes in the general circulation model ECHAM5, *AGU Fall Meeting*, San Francisco, 15 - 19 December 2008.

Quaas, J., Aerosol direct and indirect climate forcings: Clues from satellite data and global modeling, *International Radiation Symposium*, Foz do Iguaçu, invited presentation, 3 - 8 August 2008.

Quaas, J., Evaluation of cloud microphysics in a general circulation model using satellite data, *7th WMO Cloud Modeling Workshop*, Cozumel, 14 - 17 July 2008.

Quaas, J., Clouds in the ECHAM5 GCM, *15th International Conference on Clouds and Precipitation*, Cancun, 7 - 11 July 2008.

Quaas, J., Planetary albedo as a function of cloud and aerosol properties: Statistical analysis from satellite data, *Pan-GCSS meeting*, 2 - 6 June 2008, Toulouse.

Lohmann, U. and J. Quaas, Overview and future perspective of aerosol-cloud-precipitation interactions from global climate model simulations, *AGU Spring meeting*, Fort Lauderdale, 27 - 30 May 2008.

Gehlot, S. and J. Quaas, Evaluation of diurnal cycle of convection in ECHAM5 general circulation model with satellite data, *EGU General Assembly*, Vienna, 13 - 18 April 2008.

Peters, K. and J. Quaas, Satellite derived direct aerosol effect of aerosols above clouds, *EGU General Assembly*, Vienna, 13 - 18 April 2008.

Quaas, J. and Feichter, Climate change mitigation by seeding marine boundary-layer clouds?, *EGU General Assembly*, Vienna, 13 - 18 April 2008.

Quaas, J. and B. Stevens, Analysis of the relationship between cloud cover and aerosol concentration from MODIS satellite data and ERA-40 re-analyses, *EGU General Assembly*, Vienna, 13 - 18 April 2008.

Stier, P., J. H. Seinfeld, U. Lohmann, and J. Quaas, Quantification of uncertainties associated with indirect aerosol effect parameterizations of various complexities, *EGU General Assembly*, Vienna, 13 - 18 April 2008.

Weber, T. and J. Quaas, Evaluation of the subgrid-scale variability scheme for water vapor and cloud condensate in ECHAM5 using satellite data, *EGU General Assembly*, Vienna, 13 - 18 April 2008.

Gehlot, S., J. Quaas, and A. Devasthale, Evaluation of diurnal cycle of convection in a GCM with satellite data, *AGU fall meeting*, San Francisco, 10 - 14 December 2007.

Stier, P., J. Seinfeld, U. Lohmann, and J. Quaas, Efficiency of primary and secondary aerosols in indirect aerosol effects, *AGU fall meeting*, San Francisco, 10 - 14 December 2007.

Quaas, J., Analysis of aerosol indirect effects with A-Train data and global climate models, *A-Train Symposium*, Lille, 22 - 25 October 2007.

Quaas, J., Analyse indirekter Aerosol-Effekte mit Satellitendaten und globalen Klimamodelle, *Meteorologentagung DACH*, Hamburg, 10 - 14 September 2007.

Quaas, J., Aerosol indirect effects: Modelling constraints inferred from satellite data, *Second International Conference on Earth System Modelling*, Hamburg, 27 - 31 August 2007.

Quaas, J. and S. Kinne, Constraints on GCM parameterizations of the aerosol indirect effect from multiple-instrument satellite data, *EarthCare workshop*, Noordwijk, 7 - 9 May 2007.

Quaas, J., O. Boucher, N. Bellouin, and S. Kinne, Estimate of direct and indirect aerosol radiative forcings from satellite data, *EGU General Assembly*, Vienna, 2 - 7 April 2006.

Kinne, S., M. Schulz, J. Quaas, and J. Feichter, Aerosol direct radiative forcing, *EGU General Assembly*, Vienna, 2 - 7 April 2006.

Dufresne, J.-L., J. Quaas, O. Boucher, S. Denvil, and L. Fairhead, Contrasts in the effects on climate of anthropogenic sulfate aerosols between the 20th and the 21st century, *EGU General Assembly*, Vienna, 2 - 7 April 2006.

Kinne, S. and J. Quaas, Correlations between aerosol and environmental properties: Clues to determine skill in global modeling, *AGU Fall Meeting*, San Francisco, 5 - 9 December 2005.

Penner, J. E., J. Quaas, T. Storelvmo, T. Takemura, and H. Guo, Model intercomparison of aerosol indirect effect, *AGU Fall Meeting*, San Francisco, 5 - 9 December 2005.

Peng, Y., U. Lohmann, R. Leaitch, and J. Quaas, Microphysical mechanism analysis and sensitivity studies on the aerosol dispersion effect, *IAMAS*, Beijing, 2 - 11 August 2005.

Quaas, J., O. Boucher, and S. Kinne, Estimate of aerosol indirect radiative forcing by combining satellite data and global models, *EGU General Assembly*, Vienna, 24 - 29 April 2005.

Stier, P., J. Quaas, J. Feichter, S. Kinne, U. Lohmann, and J. Zhang, Simulation of the indirect aerosol effect with the ECHAM5-HAM aerosol climate model, *EGU General Assembly*, Vienna, 24 - 29 April 2005.

Quaas, J., O. Boucher, and S. Kinne, Combining satellite data and global models to estimate indirect effects, *IGAC specialty conference on the indirect effects of aerosols on climate*, Manchester, 4 - 7 January 2005.

Quaas, J. and S. Kinne, Aerosol indirect effect: A measurement-based approach, *AGU Fall Meeting*, San Francisco, 13 - 17 December 2004.

Kinne, S. and J. Quaas, Aerosol radiative forcing: A measurement-based approach, *AGU Fall Meeting*, San Francisco, 13 - 17 December 2004.

Quaas, J., C. Stubenrauch, G. Rädcl, M. Doutriaux-Boucher, O. Boucher, H. Le Treut, G. Sèze, J. Pelon, U. Lohmann, P. Stier, and J. Feichter, Evaluating GCM ice clouds with satellite data, *COST Ci-ISSR Workshop*, Oberpfaffenhofen, 11 - 12 October 2004.

Quaas, J., Use of POLDER, MODIS, and TOVS satellite data and SARTA ground-based remote sensing to evaluate aerosol indirect effects in the LMDZ GCM, *CALIPSO Science Team Meeting*, Nice, 3 - 5 May 2004.

Quaas, J., C. Stubenrauch, G. Rädcl, M. Haefelin, A. Protat, O. Boucher, and H. Le Treut, Evaluation of GCM parameterizations of cloud microphysics and aerosol indirect effects using TOVS satellite data and ground-based remote sensing data of the SARTA site, *EGU 1st General Assembly*, Nice, 26 - 30 April 2004.

Quaas, J. and O. Boucher, Constraint of aerosol indirect radiative forcing in a GCM using POLDER satellite data, *EGU 1st General Assembly*, Nice, 26 - 30 April 2004.

Quaas, J., M. Haefelin, A. Protat, and H. Le Treut, Évaluation des paramétrisations des nuages et des effets indirects des aérosols dans un MCG avec les observations du site instrumental SARTA, *Atelier Expérimentation et Instrumentation*, Paris, 23 - 24 March 2004.

Quaas, J., O. Boucher, and H. Le Treut, Development of a liquid- and ice-phase cloud microphysics scheme and application in the LMDZ GCM to investigate aerosol indirect effects, *EGS-AGU-EUG Joint Assembly*, Nice, 6 - 11 April 2003.

Quaas, J., O. Boucher, and F.-M. Bréon, Aerosol-cloud interactions in the LMDZ GCM and in POLDER satellite data, *EGS-AGU-EUG Joint Assembly*, Nice, 6 - 11 April 2003.

Quaas, J., O. Boucher, and H. Le Treut, Mechanisms of anthropogenic climate change in a simulation of the 20th century's climate with the LMDZ GCM with focus on aerosol indirect radiative effects, *EGS-AGU-EUG Joint Assembly*, Nice, 6 - 11 April 2003.

Doutriaux-Boucher, M., J. Quaas, O. Boucher, and J.-L. Dufresne, Testing and developing cloud parameters in the LMDZ GCM by using POLDER and METEOSAT satellite data, *EGS-AGU-EUG Joint Assembly*, Nice, 6 - 11 April 2003.

Menon, S., J.-L. Brenguier, O. Boucher, P. Davison, A. D. Del Genio, J. Feichter, S. Ghan, S. Guibert, X. Liu, U. Lohmann, H. Pawlowska, J. E. Penner, J. Quaas, D. L. Roberts, L. Schüller, and J. Snider, Evaluating aerosol/cloud/radiation parameterizations with single column models and ACE-2 observations, *EGS-AGU-EUG Joint Assembly*, Nice, 6 - 11 April 2003.

Doutriaux-Boucher, M., J. Quaas, V. Giraud, G. Sèze, and C. Vanbauce, Comparaison of cloud phase/pressure/temperature relationships in the LMD GCM and POLDER data, *EGS*, Nice, 21 - 26 April 2002.

Quaas, J., O. Boucher, and H. Le Treut, Parametrization of the aerosol indirect effect in the LMDZT GCM, *GEWEX*, Paris, 10 - 14 September 2001.

Quaas, J. and O. Boucher, Parametrization of the aerosol indirect effect in the LMDZT GCM, *IAMAS*, Innsbruck, 10 - 18 July 2001.

Quaas, J. and W. Joppich, Experiences with Coupling Techniques applied to GCMs in a Meta-Computing Environment, *IMACS*, Lausanne, 21 - 25 August 2000.

---

## OTHER PUBLICATIONS

Quaas, J., Global warming: The soot factor, *Nature*, 471, 456–457, doi 10.1038/471456a, 2011.

Quaas, J., Schattenspende und Wärmedecke - die Rolle der Wolken im Klimasystem, *Welt der Physik*, 2010.

Quaas, J., Smoke and climate change, *Science*, 325(5937), 153–154, doi 10.1126/science.1176991, 2009.

Yano, J.-I., J. Quaas, T. M. Wagner, and R. S. Plant, Toward statistical descriptions of convective cloud dynamics, *EOS*, 88, 23, 2008.

Quaas, J. and O. Boucher, Réglage de la paramétrisation de l'effet indirect des aérosols avec des données satellitaires, *LMDZ-Info*, 6, 16–18, Laboratoire de Météorologie Dynamique, Paris, 2006.

Quaas, J. and O. Boucher, Forçage indirect par différents types d'aérosols : Sulfates et mélanges "interne" et "externe", *LMDZ-Info*, 6, 18–19, Laboratoire de Météorologie Dynamique, Paris, 2006.

Hänsler, U., Staub im Klimarechner - Warum Forscher kleinste Teilchen zählen, (scientific advice), 2005.

Quaas, J., O. Boucher, and J.-L. Dufresne, Effets des aérosols sulfatés sur le climat du 20ème siècle, *LMDZ-Info*, 5, 6–7, Laboratoire de Météorologie Dynamique, Paris, 2005.

Quaas, J., O. Boucher, and J.-L. Dufresne, Développement d'une nouvelle représentation des effets indirects des aérosols, *LMDZ-Info*, 5, 9–10, Laboratoire de Météorologie Dynamique, Paris, 2005.

Doutriaux-Boucher, M. and J. Quaas, Évaluation de la paramétrisation de la phase thermodynamique en utilisant des données satellitaires POLDER, *LMDZ-Info*, 4, 10–11, Laboratoire de Météorologie Dynamique, Paris, 2004.