

## Christoph Zülicke – Publication Inventory

Primary publications (peer-reviewed) .....	1
Secondary publications (not peer-reviewed).....	5
Reports, preprints, contributions.....	5
Conference talks.....	8
Conference posters .....	14
Seminar talks (since 2000).....	17
Editorial activities.....	22
Reviewer .....	22
Editor.....	23

### Primary publications (peer-reviewed)

- 41) Becker, E., S. L. Vadas, K. Bossert, V. L. Harvey, C. Zülicke & L. Hoffmann, 2022: A high-resolution whole-atmosphere model with resolved gravity waves and specified large-scale dynamics in the troposphere and lower stratosphere. *J. Geophys. Res. Atmos.* **127**, 2: 035018, doi:10.1029/2021JD035018.
- 40) Geldenhuys, M., P. Preusse, I. Krisch, C. Zülicke, J. Ungermann, M. Ern, F. Friedl-Vallon & M. Riese, 2021: Orographically-Induced Spontaneous Imbalance within the Jet Causing a Large Scale Gravity Wave Event. *Atmos. Chem. Phys.* **21**: 10393-10412, doi:10.5194/acp-21-10393-2021.
- 39) Söder, J., C. Zülicke, M. Gerding & F.-J. Lübken, 2021: High-resolution observations of turbulence distributions across tropopause folds. *J. Geophys. Res. Atmos.* **126**, 6: 033857, doi:10.1029/2020JD033857.
- 38) Amiramjadi, M., A. R. Mohebalhojeh, M. Mirzaei, C. Zülicke & R. Plougonven, 2020: The spatio-temporal variability of nonorographic gravity wave energy and relation to its source functions. *Mon. Wea. Rev.* **148**, 12: 4837–4857, doi:10.1175/MWR-D-20-0195.1.
- 37) Stephan, C. C., H. Schmidt, C. Zülicke & V. Matthias, 2020: Oblique Gravity Wave Propagation during Sudden Stratospheric Warmings. *J. Geophys. Res. Atmos.* **125**: 031528, doi:10.1029/2019JD031528.

- 36) Haghghatnasab, M., M. Mirzaei, A. R. Mohebalhojeh, C. Zülicke & R. Plougonven, 2020: Application of the Compressible, Nonhydrostatic, Balanced Omega Equation in Estimating Diabatic Forcing for Parameterization of Inertia–Gravity Waves: Case Study of Moist Baroclinic Waves Using WRF. *J. Atmos. Sci.* **77**, 1: 113-129, doi:10.1175/jas-d-19-0039.1.
- 35) Schoon, L. & C. Zülicke, 2018: A novel method for the extraction of local gravity wave parameters from gridded three-dimensional data: description, validation, and application. *Atmos. Chem. Phys.* **18**: 6971-6983, doi:10.5194/acp-18-6971-2018, <https://doi.org/10.5194/acp-18-6971-2018>.
- 34) Hien, S., J. Rolland, S. Borchert, L. Schoon, C. Zülicke & U. Achatz, 2018: Spontaneous inertia–gravity wave emission in the differentially heated rotating annulus experiment. *J. Fluid Mech.* **838**: 5-41, doi:10.1017/jfm.2017.883.
- 33) Zülicke, C., E. Becker, V. Matthias, D. H. W. Peters, H. Schmidt, H.-L. Liu, L. de la Torre Ramos & D. M. Mitchell, 2018: Coupling of stratospheric warmings with mesospheric coolings in observations and simulations. *J. Climate* **31**: 1107-1133, doi:10.1175/JCLI-D-17-0047.1.
- 32) Zülicke, C. & E. Becker, 2017: Relation between Equatorial Mesospheric Wind Anomalies during Spring and Middle Atmosphere Variability Modes. *Sci. Online Lett. Atmos.* **13A**: 31-35, doi:10.2151/sola.13A-006.
- 31) Mirzaei, M., A. R. Mohebalhojeh, C. Zülicke & R. Plougonven, 2017: On the quantification of imbalance and inertia-gravity waves generated in numerical simulations of moist baroclinic waves using the WRF model. *J. Atmos. Sci.* **74**: 4241-4263, doi:10.1175/jas-d-16-0366.1.
- 30) Kishore Kumar, G., K. K. Kumar, W. Singer, C. Zülicke, S. Gurubaran, G. Baumgarten, G. Ramkumar, S. Sathishkumar & M. Rapp, 2014: Mesosphere and lower thermosphere zonal wind over low latitudes: Relation to local stratospheric zonal winds and global circulation anomalies. *J. Geophys. Res. Atmos.* **119**, 10: 5913 - 5927. doi:10.1002/2014JD021610.
- 29) Mirzaei, M., C. Zülicke, A. R. Mohebalhojeh, F. Ahmadi-Givi & R. Plougonven, 2014: Structure, energy and parametrization of inertia-gravity waves in dry and moist simulations of a baroclinic wave life cycle. *J. Atmos. Sci.*, **71**, 7: 2390 - 2414. doi:10.1175/JAS-D-13-075.1.

- 28) Peters, D. H. W., A. Schneidereit, M. Bügelmayer, C. Zülicke & I. Kirchner, 2015: Atmospheric circulation changes in response to a stratospheric zonal ozone anomaly. *Atmos.-Ocean* **53**, 1: 74 - 88. doi:10.1080/07055900.2013.878833.
- 27) Zülicke, C. & E. Becker, 2013: The structure of the mesosphere during sudden stratospheric warmings in a global circulation model. *J. Geophys. Res. Atmos.* **118**: 2255 - 2271. doi:10.1002/jgrd.50219.
- 26) Kuss, J., Ch. Zülicke, Ch. Pohl and B. Schneider, 2011: Atlantic mercury emissions determined from continuous analysis of the elemental mercury air-sea concentration difference within transects between 50 °N and 50 °S. *Global Biogeochem. Cycles* **25**: GB3021. doi:10.1029/2010GB003998.
- 25) Zülicke, Ch. and D.H.W. Peters, 2010: On the estimation of persistence in geophysical time series. *Eur. Phys. J. - Special Topics* **187**: 101 - 108. doi: 10.1140/epjst/e2010-01275-2.
- 24) Eixmann, R., D. H. W. Peters, C. Zülicke, M. Gerding & A. Dörnbrack, 2010: On the upper tropospheric formation and occurrence of high and thin cirrus clouds during anticyclonic poleward Rossby wave breaking events. *Tellus* **62A**: 228 - 242, doi:10.1111/j.1600-0870.2010.00437.x, <https://www.tandfonline.com/doi/abs/10.1111/j.1600-0870.2009.00437.x>.
- 23) Zülicke, Ch. and D. Peters, 2008: Parameterization of strong stratospheric inertia-gravity waves forced by poleward breaking Rossby waves. *Mon. Wea. Rev.* **136**, 1: 98 - 119, doi:10.1175/2007MWR2060.1.
- 22) Serafimovich, A., C. Zülicke, P. Hoffmann, D. H. W. Peters, P. Dalin & W. Singer, 2006: Inertia gravity waves in the upper troposphere during the MaCWAVE winter campaign - Part II: Radar investigations and modelling studies. *Ann. Geophys.* **24**: 2863 - 2875. doi:10.5194/angeo-24-2863-2006. [www.ann-geophys.net/24/2863/2006/](http://www.ann-geophys.net/24/2863/2006/) .
- 21) Zülicke, Ch. and D. Peters, 2006: Simulation of inertia-gravity waves in a poleward breaking Rossby wave. *J. Atmos. Sci.* **63**, 12: 3253 - 3276, doi:10.1175/JAS3805.1.
- 20) Peters, D. and Ch. Zülicke, 2006: Atmospheric Angular Momentum Balance for the Southern Hemisphere During the Polar Vortex Break-up of September 2002. *Tellus* **58A**: 508 - 519, doi: 10.1111/j.1600-0870.2006.00187.x.

- 19) Pineda, M., R. Imbihl, L. Schimansky-Geier and Ch. Zülicke, 2006: Theoretical analysis of internal fluctuations and bistability in CO oxidation on nanoscale surfaces. *J. Chem. Phys.* **124**, 044701, doi:10.1063/1.2140709.
- 18) Zülicke, Ch., 2005: Air-sea fluxes including the effect of the molecular skin layer. *Deep-Sea Res. Pt. II* **52**, 9-10: 1220 - 1245, doi: 10.1016/j.dsr2-2005.01.008.
- 17) Santos, M. A., C. Zülicke & L. Schimansky-Geier, 2001: Noise-induced dynamic bistability of front propagation. *Phys. Lett. A* **290**, 5/6: 270 - 276. doi:10.1016/S0375-9601(01)00685-5.
- 16) Zülicke, C., E. Hagen & A. Stips, 1998: Dissipation and mixing in a coastal jet: A Baltic Sea case study. *Aquat. Sci.* **60**, 3: 220 - 235. doi:10.1007/s000270050038.
- 15) Zülicke, C. & E. Hagen, 1998: Impact of the skin effect on the near-surface temperature profile. *Phys. Chem. Earth* **23**, 5-6: 531-535, doi:10.1016/S0079-1946(98)00066-4.
- 14) Hagen, E., C. Zülicke & R. Feistel, 1996: Near-surface structures in the Cape Ghir filament off Morocco. *Oceanologica Acta* **19**, 6: 577-598, <https://archimer.ifremer.fr/doc/00096/20728/>.
- 13) Schimansky-Geier, L., H. Hempel, R. Bartussek & C. Zülicke, 1995: Analysis of domain solutions in reaction-diffusion systems. *Z. Physik B - Cond. Mat.* **96**: 417 - 427. doi:10.1007/BF01313065.
- 12) Bartussek, R., C. Zülicke & L. Schimansky-Geier, 1995: One-dimensional domains in systems with long-range inhibition. *Chaos, Solitons and Fractals* **5**, 10: 1927-1934. doi:10.1016/0960-0779(94)00200-A.
- 11) Schimansky-Geier, L., C. Zülicke & E. Schöll, 1992: Growth of domains under global constraints. *Physica A* **188**: 436. doi:10.1016/0378-4371(92)90285-X.
- 10) Bär, M., M. Falcke, C. Zülicke, H. Engel, M. Eiswirth & G. Ertl, 1992: Reaction fronts and pulses in the CO oxidation on Pt. *Theoretical Analysis. Surf. Sci.* **268/270**: 471-475. doi:10.1016/0039-6028(92)91294-L.
- 9) Bär, M., C. Zülicke, M. Eiswirth & G. Ertl, 1992: Theoretical modeling of spatio-temporal selforganization in a surface catalyzed reaction exhibiting bistable kinetics. *J. Phys. Chem.* **96**, 11: 8592 - 8604, doi:10.1063/1.462312.

- 8) Schimansky-Geier, L., C. Zülicke & E. Schöll, 1991: Domain formation due to Ostwald ripening in bistable systems far from equilibrium. *Z. Physik B - Cond. Mat.* **84**: 433-441. doi:10.1007/BF01314019.
- 7) Schimansky-Geier, L. & C. Zülicke, 1991: Kink propagation induced by multiplicative noise. *Z. Physik B - Cond. Mat.* **82**: 157-162. doi:10.1007/BF01313999.
- 6) Schimansky-Geier, L., J. J. Hesse & C. Zülicke, 1991: Harmonic-noise driven bistable dynamics. *Ber. Bunsenges. Phys. Chem.* **95**, 3: 349 - 352, doi:10.1002/bbpc.19910950321
- 5) Ebeling, W., A. Engel, L. Schimansky-Geier & C. Zülicke, 1991: Dynamics of fronts, nuclei and patterns in 2D random media. *Physica D* **49**: 170-176. doi:10.1016/0167-2789(91)90205-N.
- 4) Zülicke, C. & L. Schimansky-Geier, 1990: Pattern dynamics in distributed light-dependent chemical systems. *Z. phys. Chem. (Leipzig)* **271**, 2: 357-368, doi:10.1515/zpch-1990-27145, <https://www.degruyter.com/view/journals/zpch/271O/1/article-p357.xml>.
- 3) Zülicke, C., A. S. Mikhailov & L. Schimansky-Geier, 1990: Dynamic bistability of front propagation and stable localized domains in systems with first-order phase transition. *Physica A* **163**, 1: 559-583. doi:10.1016/0378-4371(90)90145-I.
- 2) Schimansky-Geier, L. & C. Zülicke, 1990: Harmonic noise: Influence on bistable systems. *Z. Physik B - Cond. Mat.* **79**: 451 - 460. doi:10.1007/BF01437657.
- 1) Zülicke, C., W. Ebeling & L. Schimansky-Geier, 1989: Dynamic pattern processing with adaptive excitable media. *BioSystems* **422**, 1: 261-272. doi:0.1016/0303-2647(89)90047-6.

Of these, Web of Science lists 41 publications, 833 citations and a Hirsch-Index of 16 (by 05 January 2024).

## Secondary publications (not peer-reviewed)

### Reports, preprints, contributions

- 22) Geldenhuys, M., P. Preusse, I. Krisch, C. Zülicke, J. Ungermann, M. Ern, F. Friedl-Vallon & M. Riese, 2021: Orographically-Induced Spontaneous

- Imbalance within the Jet Causing a Large Scale Gravity Wave Event. *Atmos. Chem. Phys. Discuss.*, doi:10.5194/acp-2020-1289.
- 21) Zülicke, C., 2018: Die Messlatte liegt hoch - Interview mit Prof. Lübken. *Leibniz-Nordost* 25: 4-5.
- 20) Schlutow, M. & C. Zülicke, 2013: Vom Winde verweht - Transport von Spurenstoffen im Atmosphärenmodell. *Leibniz-Nordost* 17: 6 - 7.
- 19) Becker, E. & C. Zülicke, 2011: Dynamische Prozesse hinter dem Wandel - IAP erkundet langfristige Variabilitätsmuster in der mittleren Atmosphäre. *Leibniz-Nordost* 13: 10 - 11.
- 18) Zülicke, C., E. Becker & P. Hoffmann, 2011: Jojo in der Atmosphäre - Mesosphärische Abkühlungen und stratosphärische Erwärmungen. *Leibniz-Nordost* 12: 8 - 9.
- 17) Zülicke, Ch. and D. Peters, 2007: Impact of upper-level jet-generated inertia-gravity waves on surface wind and precipitation. *Atm. Chem. Phys. Disc.* 7: 15873 - 15909 < <http://www.atmos-chem-phys-discuss.net/7/15873> >.
- 16) Zülicke, Ch., M. Kostur and L. Schimansky-Geier, 2006: Active Brownian motion of localised excitations. In: Pöschel, T., L. Schimansky-Geier and H. Malchow: *Irreversible Prozesse und Selbstorganisation* (Logos-Verlag, Berlin, ISBN 3-8325-1350-7): 341 – 359.
- 15) Peters, D., Ch. Zülicke, P. Hoffmann and A. Serafimovich, 2004: Inertia-gravity waves and their contribution to breaking Rossby waves (LEWIZ). *AFO2000-Newsletter* 8 (GSF München, Sep 2004): 15 – 18 < [http://www.afo-2000.de/004/pdf\\_download/AFO\\_NewsI%238.pdf](http://www.afo-2000.de/004/pdf_download/AFO_NewsI%238.pdf) >.
- 14) Bodungen, B. v. and Ch. Zülicke, 1999: *Ökosystem Ostsee. Spektrum der Wissenschaft* (Februar 1999) A 33 - A 35 (in German).
- 13) Zülicke, Ch. and E. Hagen, 1997: *GOBEX Report - Hydrographic Data at IOW. Marine Science Reports*. 21 (Baltic Sea Research Institute, Warnemuende, Germany) 73 pages.
- 12) John, H.-C., P. Re & C. Zülicke, 1996: Sardine larvae in a spring-upwelling event off Northern Portugal. *Cienc. Biol. Ecol. Syst. (Portugal)* 16, 1/2: 193 - 198.
- 11) Zülicke, Ch. and C. Sattler, 1996: Ekman Transport in Shallow Waters under Fluctuating Winds. In: Freund J. (Ed.): *Dynamik, Evolution, Strukturen* (Verlag Dr. Köster, Berlin, ISBN 3-89574-190-6) 147 - 157.

- 10) Zülicke, Ch. and O. Hennig, 1996: Surface energy fluxes and mixed layer depth. In: E. Hagen (Editor): GOBEX Summary Report. Marine Science Reports. 19 (Baltic Sea Research Institute, Warnemuende, Germany) 92-104.
- 9) Zülicke, Ch., I. Schuffenhauer and A. Stips, 1996: Baltic measurements of turbulence in the surface mixed layer. In: E. Hagen (Editor): GOBEX Summary Report. Marine Science Reports. 19 (1996, Baltic Sea Research Institute, Warnemuende, Germany) 76-91.
- 8) Zülicke, Ch., A. Steel and U. Stips, 1994: AVHRR-HRPT SST scenes for AMOR92. CEC / JRC Ispra / IRSA: Technical Note No. I.94.123 (September 1994).
- 7) Zülicke, Ch., A. Steel and U. Stips, 1994: Processing AVHRR-HRPT Data Using TeraScan. CEC / JRC Ispra / IRSA: Technical Note No. I.94.84 (June 1994).
- 6) Zülicke, Ch., 1994: AMOR 92 - Scientific Report (02.09.-14.10.1992 - Scientific Research Cruise with RV "A.von Humboldt). CEC / JRC Ispra / IRSA: Technical Note I.94.06 (January 1994).
- 5) Zülicke, Ch. (Ed.), 1993: Atmosphere - Ocean Interaction / Baltic Sea Activities: Joint workshop of the Institute for Remote Sensing Applications (Ispra) and the Institute for Baltic Sea Research (Warnemünde) / 15.-18.11.93 Ispra. CEC / JRC Ispra / IRSA: Technical Note I.93.161.
- 4) Schimansky-Geier, L. and Ch. Zülicke, 1991: The Dynamics of Domain Formation in Bistable Reaction-Diffusion Systems. Proc. Conf. Svidno 1990. in J. Popielawski, J. Gorecki: "Far-From-Equilibrium Dynamics of Chemical Systems" (World Sci. Publ.; Singapore; 1991) 226-256.
- 3) Zülicke, Ch., 1991: Fronts and domains in deterministic and stochastic bistable reaction-diffusion systems (PhD Thesis, Humboldt-University at Berlin, Germany).
- 2) Ebeling, W., L. Schimansky-Geier and Ch. Zülicke, 1988: Dynamics of Networks and Pattern Processing. Proc. Int. Conf.; 27.02.-03.03.1988; Zeinisjoch; in Plath P.J. (Ed.): Optimal Structures in Heterogeneous Reaction Systems. Synergetics 44 (Springer-Verlag; Berlin, Heidelberg, New York; 1989) 139.
- 1) Zülicke, Ch., 1988: Modelling of the light-dependent Belousov-Zhabotinsky reaction and its application for pattern processing (Diploma, Humboldt-University at Berlin, Germany).

## Conference talks

- 51) Zülicke, Ch., 2022: Wave capture and diffusion limitation of jet-generated gravity waves (SPARC Gravity Wave Symposium, 28 March – 01 April 2022, Frankfurt / Main) 15 min talk.
- 50) Zülicke, Ch., 2018: Coupling of stratospheric warmings with mesospheric coolings (VCAIS7 – 7<sup>th</sup> Workshop on Vertical Coupling in the Atmosphere-Ionosphere System, 02 – 06 July 2018, GFZ Potsdam) 20 min talk.
- 49) Zülicke, Ch., V. Matthias & E. Becker, 2016: Linking mesospheric coolings and stratospheric warmings (SPS7 - Seventh Symposium on Polar Science, 29 November – 02 December 2016, NIPR Tokyo, JP) invited 30 min talk.
- 48) Zülicke, Ch., E. Becker, V. Matthias & G. Kishore Kumar, 2016: Relation of low-latitude mesospheric wind anomalies to SAO, QBO and SSW (ISWA – International Symposium on the Whole Atmosphere, 14 – 16 September 2016, U Tokyo, JP) 15 min talk.
- 47) Zülicke, Ch., 2016: A theory for gravity wave generation from jets, fronts and convection (SPARC Gravity Wave Symposium, 16 – 20 May 2016, Pennsylvania State University, State College, PA) 15 min talk.
- 46) Zülicke, Ch., 2015: Mesospheric Quasi-Biennial Oscillation - Possible impact of SSWs (Workshop of ISSI Team 320 "Sudden Stratospheric Warmings"; 26 – 30 January 2015, ISSI Bern, CH) 20 min talk.
- 45) Zülicke, Ch., 2015: Statistics of mesospheric coolings during stratospheric warmings in observations and simulations (Workshop of ISSI Team 320 "Sudden Stratospheric Warmings"; 26 – 30 January 2015, ISSI Bern, CH) 20 min talk.
- 44) Zülicke, Ch., 2015: Statistics of mesospheric coolings during stratospheric warmings in observations and simulations. Do vortex splits favour the vertical extension of SSW events? (AMS Annual Meeting, 04 – 08 January 2015, Phoenix, AZ, US) 15 min talk
- 43) Zülicke, Ch., 2013: Do split stratospheric vortices reach higher? On the vertical extension of stratospheric warmings and the related form of the polar vortex (Workshop of ISSI Team 217 "Atmosphere-Ionosphere Coupling"; 14 – 18 October 2013, ISSI Bern, Switzerland) 20 min talk.



- 42) Zülicke, Ch., 2012: Planetary waves in the mesosphere during sudden stratospheric warmings - with a discussion of event classification and timing diagnostics. (Workshop of ISSI Team 217 "Atmosphere-Ionosphere Coupling"; 29 October – 02 November 2012, ISSI Bern, Switzerland) 20 min talk.
- 41) Zülicke, Ch. & E. Becker, 2012: Structure of the mesosphere during sudden stratospheric warmings. (Workshop on Stratospheric Sudden Warming and its Role in Weather and Climate Variations, 22 – 24 February 2012, Kyoto University, Japan) 20 min talk.
- 40) Zülicke, Ch., 2011: Structure of the mesosphere during sudden stratospheric warmings - in search for mesospheric harbingers. (Workshop of ISSI Team 217 "Atmosphere-Ionosphere Coupling"; 07 - 11 November 2011, ISSI Bern, Switzerland) 20 min talk.
- 39) Zülicke, Ch., 2011: Dynamics of the mesosphere during sudden stratospheric warmings. (AGU Chapman Conference on Atmospheric Gravity Waves and Their Effects on General Circulation and Climate; 28 February - 04 March 2011, Honolulu, Hawaii, USA) 20 min talk.
- 38) Zülicke, Ch., 2010: Dynamics of the mesosphere during sudden stratospheric warmings. (Workshop of ISSI Team 152; 08 - 12 November 2010, ISSI Bern, Switzerland) 20 min talk.
- 37) Zülicke, Ch., 2010: Air-sea interaction model for momentum and mass flux in the presence of wind waves. (Sixth Study Conference on BALTEX, Miedzyzdroje at Wolin, Poland, 14 - 18 June 2010) 20 min talk. International BALTEX Secretariat Publication No. 46 (June 2010; ISSN 1681-6471) 84 - 85 < [http://www.baltex-research.eu/wolin2010/Material/Proceedings\\_BALTEX\\_Wolin2010.pdf](http://www.baltex-research.eu/wolin2010/Material/Proceedings_BALTEX_Wolin2010.pdf) >.
- 36) Zülicke, Ch., 2010: Air-sea fluxes of momentum and mass in the presence of wind waves. (EGU Conference, 02 - 07 May 2010, Vienna, Austria) 15 min talk. < <http://meetingorganizer.copernicus.org/EGU2010/EGU2010-10133.pdf> >.
- 35) Zülicke, Ch., 2010: Generation and propagation of inertia-gravity waves in the atmosphere (in analogy to the ocean) (EGU Conference, 02 - 07 May 2010,

- Vienna, Austria) 15 min talk <  
<http://meetingorganizer.copernicus.org/EGU2010/EGU2010-9922.pdf> >.
- 34) Zülicke, Ch., E. Becker & B. Fründt, 2009: Role of tides in mean flow forcing. (Workshop of ISSI Team 152; 19 - 23 October 2009, ISSI Bern, Switzerland) 15 min talk.
- 33) Zülicke, Ch., 2008: The Vangengeim-Girs-Index (VGI) - An effective measure for the northern-hemisphere mid-latitude atmospheric circulation patterns (ICES/PICES/GLOBEC Workshop on Changes in distribution and abundance of clupeiform small pelagic fish in relation to climate variability and global change; Chairs: Jürgen Alheit, Germany; Gerd Kraus, Germany; Jin Yeong Kim, South Korea; 3 - 7 November, 2008 at the Institute of Sea Fisheries, Hamburg) 15 min talk.
- 32) Zülicke, Ch., 2007: Generation and propagation of inertia-gravity waves in the atmosphere (in analogy to the ocean) (Physical Processes in Natural Waters, Warnemünde, Germany, 03 - 06 Sep 2007) 30 min talk.
- 31) Zülicke, Ch., 2007: The impact of surface active films on waves and gas exchange (Physical Processes in Natural Waters, Warnemünde, Germany, 03 - 06 Sep 2007) 30 min talk.
- 30) Zülicke, Ch., 2007: Model for the air-sea gas exchange through film-covered surface water (Fifth Study Conference on BALTEX, Kuressaare at Saaremaa, Estonia, 04 - 08 June 2007) 20 min talk; Proceedings: International BALTEX Secretariat Publication No. 38 (June 2007; ISSN 1681-6471) 110 - 111 <  
[http://www.baltex-research.eu/conf2007/5thBALTEX\\_ConfProc\\_print.pdf](http://www.baltex-research.eu/conf2007/5thBALTEX_ConfProc_print.pdf) >.
- 29) Zülicke, Ch., 2007: Air-sea fluxes and turbulence profiles in the presence of waves and films (39th International Liège Colloquium on Ocean Dynamics & 3rd Warnemünde Turbulence Days: Turbulence re-revisited, Liege, Belgium, 7-11 May 2007); 25 min talk; Proceedings <  
<http://modb.oce.ulg.ac.be/Colloquium/2007abstracts.pdf> >.
- 28) Serafimovich, A., P. Hoffmann, Ch. Zülicke, D. Peters, R. Latteck, W. Singer and P. Dalin, 2007: Inertia gravity waves in the upper troposphere during the MaCWAVE winter campaign: collocated radar observations and modelling studies (European Geosciences Union General Assembly 2007, Vienna,

- Austria, 15 – 20 April 2006); Proceedings < <http://www.cosis.net/abstracts/EGU2007/03926/EGU2007-J-03926.pdf> >.
- 27) Zülicke, Ch. and D. Peters, 2006: Parameterisation of stratospheric inertia-gravity waves forced by poleward breaking Rossby waves. (Spontaneous Imbalance Workshop #1: Perspectives from atmospheric and oceanic dynamics, 07 - 10 Aug 2006, U Washington, Seattle, USA) talk 20 min; Proceedings < <http://www.nwra.com/siw1/zuelicke.html> >.
- 26) Zülicke, Ch., 2006: A microphysical model for the air-sea gas exchange (German-Polish workshop on air-sea interactions, 26 - 29 Jun 2006, Gdansk/Starbienino) talk 30 min.
- 25) Zülicke, Ch., 2005: Impact of stability on the gas transfer through the skin layer at the air-sea interface (15th Conference on Atmospheric and Oceanic Fluid Dynamics, 13 - 17 Jun 2005, Cambridge, MA, USA) talk 20 min; Proceedings < [http://ams.confex.com/ams/Cambridge/techprogram/paper\\_92693.htm](http://ams.confex.com/ams/Cambridge/techprogram/paper_92693.htm) >.
- 24) Zülicke, Ch. and D. Peters, 2005: Precipitation and Inertia-gravity Waves (Colloquium of DFG-SPP1167 "Quantitative Precipitation Forecast", 10 - 11 Mar 2005, Physik-Zentrum Bad Honnef) talk 15 min.
- 23) Zülicke, Ch. and D. Peters, 2004: Ausbreitung von Trägheitsschwerewellen in die Stratosphäre über dem winterlichen Norddeutschland (DACH – Deutsch-Österreichisch-Schweizerische Meteorologen-Tagung, 07.-10.09.2004, Karlsruhe) talk 15 min; Proceedings < [http://imk-msa.fzk.de/dach2004/Wiss-Programm/Kurzfassungen/08-2-Tropopause/Session\\_8\\_2\\_zuelicke.doc](http://imk-msa.fzk.de/dach2004/Wiss-Programm/Kurzfassungen/08-2-Tropopause/Session_8_2_zuelicke.doc) >.
- 22) Zülicke, Ch.: 2004: Air-sea fluxes including molecular and turbulent transports in both spheres. Fourth Study Conference on BALTEX, Scala Cinema, Gudhjem, Bornholm, 24.-28.05.2004; talk 15 min; International BALTEX Secretariat Publication No. 29 (May 2004; ISSN 1681-6471) 151-152 < [http://www.baltex-research.eu/publications/PubNo.29/BALTEX\\_no29\\_03.pdf](http://www.baltex-research.eu/publications/PubNo.29/BALTEX_no29_03.pdf) >.
- 21) Zülicke, Ch. and D. Peters, 2004: Modelling the impact of inertia-gravity waves on wind and precipitation. Fourth Study Conference on BALTEX, Scala Cinema, Gudhjem, Bornholm, Denmark, 24.-28.05.2004; talk 15 min; International BALTEX Secretariat Publication No. 29 (May 2004; ISSN 1681-

- 6471) 103-104 < [http://www.baltex-research.eu/publications/PubNo.29/BALTEX\\_no29\\_03.pdf](http://www.baltex-research.eu/publications/PubNo.29/BALTEX_no29_03.pdf) >.
- 20) Zülicke, Ch., 2004: Air-sea fluxes including the effect of the molecular skin layer. European Geophysical Union - 1st General Assembly, Nice, France, 25.-30.04.2004; talk 15 min; Geophysical Research Abstracts 6, 03618 < <http://www.cosis.net/abstracts/EGU04/03618/EGU04-J-03618.pdf> >.
- 19) Zülicke, Ch. and D. Peters, 2004: Driving of inertia-gravity waves by a poleward breaking Rossby wave - Mesoscale model simulations. European Geophysical Union - 1st General Assembly, Nice, France, 25.-30.04.2004; talk 15 min; Geophysical Research Abstracts 6, 03603 < <http://www.cosis.net/abstracts/EGU04/03603/EGU04-J-03603-3.pdf> >.
- 18) Serafimovich, A., P. Hoffmann, D. Peters, Ch. Zülicke, R. Latteck and P. Dalin, 2004: Investigation of gravity waves in the upper troposphere / lower stratosphere with collocated VHF radars near the Scandinavian mountain ridge. European Geophysical Union - 1st General Assembly, Nice, France, 25.-30.04.2004; talk 15 min; Geophysical Research Abstracts 6, 00721 ;<http://www.cosis.net/abstracts/EGU04/00721/EGU04-J-00721-2.pdf>>.
- 17) Zülicke, Ch., 2003: Air-sea fluxes including the effect of the molecular skin layer. Warnemünde Turbulence Days, Baltic Sea Research Institute, Warnemünde, 17.-19.09.2003; talk 45 min; Abstracts <http://www.io-warnemuende.de/phy/wtd/abstracts.php?wahl=31>.
- 16) Zülicke, Ch., 2003: Generation of inertia-gravity waves during a poleward Rossby wave breaking event. 10th Conference on Mesoscale Processes, Portland, Oregon, 23 – 27.06.2003; Proceedings <<http://ams.confex.com/ams/10Meso/10MESO/abstracts/62638.htm>>; talk 15 min.
- 15) Zülicke, Ch., 2001: Brownian motion of spots. "Symposium on Diffusively Coupled Systems" at the SFB 555 "Complex Nonlinear Processes", Fritz-Haber-Institute Berlin, 01.06.2001; talk 30 min.
- 14) Zülicke, Ch., 2000: Turbulent transport and mixing in the ocean. "Symposium on Stochastic Processes" at the SFB 555 "Complex Nonlinear Processes"; Humboldt-Univ. Berlin, 01.09.2000; talk.

- 13) Zülicke, Ch., B.v. Bodungen and M. Sussujew, 1998: Management of Logistics and Data in the BASYS Project. In: Bohle-Carbonell, M. (Ed): Experiences in project data management. (Office for Official Publications of the EC, Luxembourg, ISBN 92-828-2887-5) 221-226; talk.
- 12) Zülicke, Ch. and E. Hagen, 1997: Impact of the skin effect on the near-surface temperature profile. 2. WS on Physical Processes in Natural Waters, 03.-05.11.1997, SAI Ispra, Italy; talk.
- 11) Zülicke, Ch., A. Stips and E. Hagen, 1997: Dissipation and Mixing in the Coastal Jet. EGS Conference, Vienna, Austria; April 1997; talk.
- 10) Zülicke, Ch., I. Schuffenhauer and A. Stips, 1996: Turbulent Transports in the Surface Mixed Layer of the Baltic Sea - A March Case Study - Workshop "Physical Processes in Natural Waters" EAWAG Kastanienbaum / Lucerne; 16.-18.09.96; talk.
- 9) Zülicke, Ch., E. Hagen, R. Feistel and P. Schlittenhardt, 1994: Sea Surface Temperature Variability in the Upwelling Region Northwest off Africa. EGS 19. General Assembly; Grenoble; 15.-19.04.94; talk.
- 8) Zülicke, Ch., 1991: Stochastics of Filament Formation (Frühjahrstagung der Deutschen Physikalischen Gesellschaft; 8.-12. 04. 1991, Münster) talk.
- 7) Zülicke, Ch., 1990: Bistable Front Propagation and Stable Domains in a Thermokinetic Model System. Proc. Conf. Serrahn 1990. (Universität Rostock, 1991; Proceeding) 174.
- 6) Zülicke, Ch., 1990: Unstable Fronts and Stable Domains in Bistable Thermokinetic Systems. (7. Schule für Statistische Physik; 08.-12.10.1990; Schloss Burgscheidungen) talk.
- 5) Zülicke, Ch., 1990: Noise-Induced Kink Propagation (1. Workshop on Dynamics in Nonlinear Systems; 23.-27.04.1990; Trassenheide) talk.
- 4) Zülicke, Ch., 1990: Dynamics of Fronts and Domains in Bistable Thermokinetic Systems (11. Summerschool "Mathematical Modelling in Chemical Engineering"; 10.-15.09.1990; Harrachov, CSFR; invited paper).
- 3) Zülicke, Ch., 1989: Pattern Processing with Light-controlled Dynamic Structures (5. Potsdamer Gespräche über Fluktuationen ...; 20.-23.03.89; Caputh) talk.

- 2) Zülicke, Ch., 1989: Dynamic Pattern Processing with Adaptive Excitable Media (4.Int. Conf. on Irreversible Processes and Selforganization; 19.- 24.02.1989; Rostock) talk.
- 1) Zülicke, Ch., 1986: Cellular Automata in Physics (Proc. 1. Int. Conf. of Students of Physics; 05.-18.10.1986; Budapest; Proceedings).

### Conference posters

- 32) Zülicke, Ch., M. Kunze, S. Borchert, H. Schmidt & A. Schneidereit, 2023: Sudden Stratospheric Warmings in UA-ICON (ICCARUS – 24<sup>th</sup> ICON/COSMO/CLM/ART User Seminar, DWD Offenbach)
- 31) Zülicke, Ch. & L. Schoon, 2019: Spontaneous emission of gravity waves during the winter 2015/16 (AOFD - 22<sup>nd</sup> Conference on Atmospheric and Oceanic Fluid Dynamics, 24 – 28 June 2019, Portland, Maine, US)
- 30) Zülicke, Ch., 2018: Coupling of stratospheric warmings with mesospheric coolings (SPARC General Assembly, 01 – 05 October 2018, Kyoto, JP)
- 29) Zülicke, Ch. and L.Schoon, 2018: Approach for the parameterization of jet-generated inertia-gravity waves (EGU General Assembly, 08 – 13 April 2018, Vienna, AT)
- 28) Zülicke, Ch., 2016: Influence of the stratospheric planetary wave structure on the mesospheric zonal-mean gravity wave drag (SPARC Gravity Wave Symposium, 16 – 20 May 2016, Pennsylvania State University, State College, PA) poster.
- 27) Zülicke, Ch., M. Mirzaei, A.R. Mohebalhojeh, F.A. Givi & R. Plougonven, 2015: A unified nonorographic gravity wave parameterization. Theory and application to model simulations (AMS Annual Meeting, 04 – 08 January 2015, Phoenix, AZ, US) poster.
- 26) Zülicke, Ch., V. Matthias & E. Becker, 2014: Do split stratospheric vortices reach higher? (SPARC 2014 General Assembly, 12 – 17 January 2014, Queenstown, NZ)
- 25) Zülicke, Ch., M. Mirzaei, A.R. Mohebalhojeh, F.A. Givi & R. Plougonven, 2014: Performance of a new gravity-wave parameterization (SPARC 2014 General Assembly, Queenstown, New Zealand, 12 – 17 January 2014)

- 24) Mirzaei, M., A. R. Mohebalhojeh, Ch. Zülicke, F. A. Givi, 2011: Inertia-gravity waves generated in a moist baroclinic wave simulation (European Geosciences Union General Assembly 2011, Vienna, 03 – 08 April 2011)
- 23) Zülicke, Ch., 2010: Mesoscale patterns of wind and precipitation due to inertia-gravity waves in model simulations and observational networks (Sixth Study Conference on BALTEX, Miedzyzdroje at Wolin, Poland, 14 - 18 June 2010); International BALTEX Secretariat Publication No. 46 (June 2010; ISSN 1681-6471) 86 - 87 < [http://www.baltex-research.eu/wolin2010/Material/Proceedings\\_BALTEX\\_Wolin2010.pdf](http://www.baltex-research.eu/wolin2010/Material/Proceedings_BALTEX_Wolin2010.pdf) >.
- 22) Zülicke, Ch. and D. Peters, 2007: Parameterization of spontaneous radiation of inertia-gravity waves from jet streaks in poleward breaking Rossby waves (European Geosciences Union General Assembly 2007, Vienna, Austria, 15 – 20 April 2007); Proceedings < <http://www.cosis.net/abstracts/EGU2007/06717/EGU2007-J-06717-3.pdf> >.
- 21) Zülicke, Ch., D. Peters and A. Gabriel, 2006: Statistical properties of inertia-gravity waves associated with poleward breaking Rossby waves (European Geosciences Union General Assembly 2006, Vienna, Austria, 02 – 07 April 2006); Proceedings < <http://www.cosis.net/abstracts/EGU06/08317/EGU06-J-08317-1.pdf> >.
- 20) Zülicke, Ch. and D. Peters, 2005: Statistical properties of inertia-gravity waves associated with poleward breaking Rossby waves (13th Conference on Middle Atmosphere, 13 - 17 June 2005, Cambridge, MA, USA); Proceedings < [http://ams.confex.com/ams/Cambridge/techprogram/paper\\_92688.htm](http://ams.confex.com/ams/Cambridge/techprogram/paper_92688.htm) >.
- 19) Peters, D., Ch. Zülicke and P. N. Vargin, 2005: The vertical Advection of angular Momentum during the austral polar Vortex Splitting of September 2002 (15th Conference on Atmospheric and Oceanic Fluid Dynamics, 13 - 17 June 2005, Cambridge, MA, USA); Proceedings < [http://ams.confex.com/ams/Cambridge/techprogram/paper\\_92983.htm](http://ams.confex.com/ams/Cambridge/techprogram/paper_92983.htm) >.
- 18) Peters, D. and Ch. Zülicke, 2004: Atmospheric angular momentum balance for the southern hemisphere during the polar vortex break-up of September 2002. SPARC 2004 conference, Halifax, Canada, 01.-06.08.2004; Poster reference number 10169, < [http://sparc.seos.uvic.ca/cgi-bin/sparc2004/abstracts/view\\_particular\\_abstract.exe?a=10169](http://sparc.seos.uvic.ca/cgi-bin/sparc2004/abstracts/view_particular_abstract.exe?a=10169) >.

- 17) Zülicke, Ch. and D. Peters, 2004: Inertia-gravity waves generated during poleward Rossby wave breaking events over Northern Germany in winter. SPARC 2004 conference, Halifax, Canada, 01.-06.08.2004; Poster reference number 10168; < [http://sparc.seos.uvic.ca/cgi-bin/sparc2004/abstracts/view\\_particular\\_abstract.exe?a=10168](http://sparc.seos.uvic.ca/cgi-bin/sparc2004/abstracts/view_particular_abstract.exe?a=10168) >.
- 16) Zülicke, Ch., D. Peters, P. Hoffmann, A. Serafimovich and M. Gerding, 2004: LEWIZ – Inertia-gravity waves and their connection to breaking Rossby waves. AFO-2000 Final seminar, Bad Tölz, 22.-24.03.2004.
- 15) Zülicke, Ch., A. Serafimovich, M. Alpers, P. Hoffmann and D. Peters, 2002: LEWIZ – Inertia-gravity waves and their connection to breaking Rossby-Waves. First results from the campaign 06.-08.03.2002 at Kühlungsborn (54 °N, 12 °E): Observations and Modelling. AFO-2000 Statusseminar, Schliersee, 07.-09.10.2002.
- 14) Zülicke, Ch., M. Santos and L. Schimansky-Geier, 2001: Noise-induced dynamic bistability of trigger fronts. 253. W.E.-Heraeus-Seminar "Dynamical structure formation in complex systems", Bad Honnef, 22.-24.03.2001.
- 13) Zülicke, Ch., 2000: Effect of stratification on the transfer velocity, SOLAS Open Science Conference, Damp/Kiel, Germany, 20.-25.02.2000.
- 12) Zülicke, Ch. and W. Eifler, 1997: Operational thermal skin effect parameterization. EGS Conference, Vienna, Austria; 21.-25.04.1997.
- 11) Zülicke, Ch. and B. von Bodungen, 1996: BASYS - European Research Project. Baltic Marine Science Conference; Hotel Griffen Roenne / Bornhom, Denmark; 22.-16.10.1996.
- 10) Zülicke, Ch., E. Hagen and K.-Ch. Emeis, 1996: GOBEX - European Research Initiative. Baltic Marine Science Conference; Hotel Griffen Roenne / Bornhom, Denmark; 22.-16.10.1996; ICES Cooperative Research Report No. 257 (2003): 174 - 175 < <http://www.ices.dk/pubs/crr/crr257/crr257.pdf> >.
- 9) Zülicke, Ch., E. Hagen, A. Stips, I. Schuffenhauer and O. Hennig, 1996: Surface Mixed Layer Dynamics. Turbulent Transport Coefficients and Mixed Layer Depth - Case Studies - Baltic Marine Science Conference; Hotel Griffen Roenne / Bornhom, Denmark; 22.-16.10.1996; ICES Cooperative Research Report No. 257 (2003): 307 - 312 < <http://www.ices.dk/pubs/crr/crr257/crr257.pdf> >.



- 8) Zülicke, Ch., L. Schimansky-Geier and E. Schöll, 1991: Stochastic Ignition of Current Filaments in Semiconductors (Dynamics Days Berlin; 12.-15.06.1991; Gosen).
- 7) Zülicke, Ch. and L. Schimansky-Geier, 1990: Front Propagation due to Multiplicative Noise. (Noise in Nonlinear Physical Systems; 17.-20.09.1990; Gosen).
- 6) Zülicke, Ch., L. Schimansky-Geier and A.S. Mikhailov, 1990: Unstable Fronts and Stable Domains in a Thermokinetic System (Noise in Nonlinear Physical Systems; 17.-20.09.1990; Gosen).
- 5) Zülicke, Ch. and L. Schimansky-Geier, 1990: Noise-induced Kink Drift (Dynamic Days; 19.-23.06.1990; Düsseldorf).
- 4) Zülicke, Ch., A.S. Mikhailov and L. Schimansky-Geier, 1990: Fronts and Domains in Systems with First-Order Phase Transition (Frühjahrstagung der Deutschen Physikalischen Gesellschaft; 26.- 30.03.1990; Regensburg).
- 3) Zülicke, Ch., L. Schimansky-Geier und W. Ebeling, 1989: Dynamic Pattern Processing with a Network of Adaptive Excitable Cells (Int. Conf. Mathematical Models of Cellular Processes; 19.-23.11.1989; Holzgau).
- 2) Zülicke, Ch., L. Schimansky-Geier und W. Ebeling, 1989: Dynamic Pattern Processing With Adaptive Excitable Media (4. Int. Conf. on Irreversible Processes and Selforganization; 19.-24.02.1989; Rostock).
- 1) Zülicke, Ch., A.S. Mikhailov and L. Schimansky-Geier, 1989: Fronts and Domains in Magnetic Superconductors (4. Int. Conf. on Irreversible Processes and Selforganization; 19.-24.02.1989; Rostock).

### **Seminar talks (since 2000)**

- 62) Zülicke, Ch., 2020: Gravity wave forcing in the mesosphere (IAP Theory seminar, 04 Aug 2020) 30 min talk.
- 61) Zülicke, Ch., 2019: Spontane Imbalanz bei  $\omega > f$  (IAP Theory seminar, 12 Nov 2019) 30 min talk.
- 60) Zülicke, Ch., 2019: Variability of the Mesosphere/ Lower Thermosphere in low and high latitudes - SAO, QBO and SSW (Forschungszentrum Jülich, Institute of Energy and Climate Research – Stratosphere (IEK-7), Kolloquium, 25 July 2019) 60 min talk.

- 59) Zülicke, Ch., 2018: Variability of the Mesosphere/ Lower Thermosphere in low and high latitudes - SAO, QBO and SSW (IAP Beirat, 18 September 2018) 20 min talk.
- 58) Zülicke, Ch., 2018: Variability of the Mesosphere/ Lower Thermosphere in low latitudes: SAO, QBO and SSW - Study of observations and simulations (IAP Kolloquium, 21 June 2018) 45 min talk.
- 57) Zülicke, Ch., 2016: Waves in waves - Propagation of gravity waves through planetary waves (IAP Theory seminar, 12 July 2016) 15 min talk.
- 56) Zülicke, Ch., 2016: Cause and effect of gravity waves - The art of (meteorological) noise in theory, observation and simulation (Goethe-Universität Frankfurt, Institut für Atmosphäre und Umwelt, Kolloquium, 14 July 2016) 45 min talk.
- 55) Zülicke, Ch., 2015: Matrix group "Waves and circulation" (IAP Beirat, 23 September 2015) 45 min talk.
- 54) Zülicke, Ch., 2015: Wavy ice clouds (IAP NLC-Matrix Workshop, 21 April 2015) 15 min talk.
- 53) Zülicke, Ch., 2014: Nucleation in waves (IAP Theory Seminar, 15 October 2014) 15 min talk.
- 52) Zülicke, Ch., 2014: Correctly cutting off (IAP Theory Seminar, 01 October 2014) 15 min talk.
- 51) Zülicke, Ch., 2014: Unified nonorographic gravity wave parameterization (ILWAO seminar with Theo Gerkema, IOW - Leibniz Institute of Baltic Sea Research, 12 March 2014) 20 min talk.
- 50) Zülicke, Ch., 2014: Structure of the mesosphere during sudden stratospheric warmings (Forschungszentrum Jülich, Institute of Energy and Climate Research – Stratosphere (IEK-7), Kolloquium, 06 March 2014) 60 min talk.
- 49) Zülicke, Ch., 2013: Matrix group "Waves and circulation" (IAP Beirat, 10 October 2013) 20 min talk.
- 48) Zülicke, Ch. & E. Becker, 2013: Structure of the mesosphere during sudden stratospheric warmings (IAP Theory Seminar, 30 January 2013) 60 min talk.
- 47) Zülicke, Ch. & E. Becker, 2012: Structure of the mesosphere during sudden stratospheric warmings (MPI Meteorology, Middle-Atmosphere Seminar, 12 December 2012) 60 min talk.

- 46) Zülicke, Ch., 2012: Dynamik der Mesosphäre während stratosphärischer Erwärmungen (IAP Beirat, 20 October 2012) 15 min talk.
- 45) Zülicke, Ch. & E. Becker, 2011: Mesosphärische Reaktionen auf stratosphärische Erwärmungen (IAP Kuratorium, 09 June 2011) 15 min talk.
- 44) Zülicke, Ch. & E. Becker, 2011: Dynamics of the mesosphere during sudden stratospheric warmings (IAP colloquium, 14 April 2011) 60 min talk.
- 43) Zülicke, Ch., 2011: On the estimation of persistence in geophysical time series (IAP Theory Seminar, 23 Mar 2012) 30 min talk.
- 42) Zülicke, Ch., 2011: Air-sea fluxes of momentum and mass in the presence of wind waves (Environmental Physics Institute at the University of Heidelberg, Prof. Jähne group, 10 Mar 2011) 45 min talk.
- 41) Zülicke, Ch. & D. Peters, 2011: On the estimation of persistence in geophysical time series (ICBM Oldenburg, Complex Systems Seminar, 13 Jan 2011) 45 min talk.
- 40) Zülicke, Ch., 2011: Air-sea fluxes of momentum and mass in the presence of wind waves (IOW Physics Seminar, 11 Jan 2011) 45 min talk.
- 39) Zülicke, Ch., 2010: Review on seamless prediction (IAP Theory Seminar, 14 Apr 2010) 15 min talk.
- 38) Zülicke, Ch., 2009: Trägheitsschwerewellen in der Atmosphäre – Beobachtung, Simulation und Theorie (ILWAO Seminar, IAP, 04 Dec 2009) 45 min talk.
- 37) Zülicke, Ch., 2009: The Vangenheim-Girs-Index (IAP Theory Seminar, 20 May 2009) 15 min talk.
- 36) Zülicke, Ch., 2009: Modellierung des Gasaustauschs (IOW Chemistry Seminar, 04 Mar 2009) 15 min talk.
- 35) Zülicke, Ch., 2008: Appearance and impact of inertia-gravity waves in association with breaking Rossby waves (Colloquium of the Department of Meteorology and Geophysics at Vienna University, 03 Dec 2008) 1 hr talk.
- 34) Zülicke, Ch., 2007: Some Frew papers (IOW CO<sub>2</sub> seminar, 21 Nov 2007) 45 min talk.
- 33) Zülicke, Ch., 2007: Air-sea fluxes of momentum and passive tracers in the presence of wind waves (IOW Physics Seminar, 23 Oct 2007) 1 hr talk.

- 32) Zülicke, Ch., 2007: Optimal model resolution and diffusion for the effective simulation of inertia-gravity waves (IOW Physics Seminar, 25 June 2007) 1 hr talk.
- 31) Zülicke, Ch., 2007: Anregung und Ausbreitung von Trägheitsschwerewellen in der Atmosphäre – Theorie und Beobachtung (IOW Physics Seminar, 29 May 2007) 1 hr talk.
- 30) Zülicke, Ch., 2006: Parameterisation of stratospheric inertia-gravity waves forced by poleward breaking Rossby waves. (IAP Theory seminar with Riwal Plougonven, 16 Nov 2006) 15 min talk.
- 29) Peters, D. and Ch. Zülicke, 2006: Trägheitsschwerewellen in polwärts brechenden Rossby-Wellen: Theoretische Hauptergebnisse der LEWIZ-Kampagnen (IAP-Beirat, 25 Oct 2006) 15 min talk.
- 28) Zülicke, Ch., 2006: Optimal model resolution and diffusion for the effective simulation of inertia-gravity waves (IAP workshop SORACAL with H.F. Graf and I. Kirchner, 27 Jul 2006) 15 min talk.
- 27) Zülicke, Ch., 2006: IAP-Abteilung Modelle & Daten: Forschungsgebiete (IAP presentation to pupils, 21 Jun 2006) 30 min talk.
- 26) Zülicke, Ch., 2006: Parametrisierung von Trägheitsschwerewellen in polwärts brechenden Rossby-Wellen (IAP colloquium, 20 Apr 2006) 1 hr talk.
- 25) Zülicke, Ch., 2006: Statistische Eigenschaften von Trägheitsschwerewellen in polwärts brechenden Rossby-Wellen (Seminar at the Institute for Physics of the Atmosphere at the DLR Oberpfaffenhofen, 16 Jan 2006) 1 hr talk.
- 24) Zülicke, Ch., 2005: From Brownian motion to Kolmogorov's 5/3 – law (IAP seminar, 29 Nov 2005) talk 15 min.
- 23) Zülicke, Ch., 2005: Proposal: Breaking Mountain Waves (IAP workshop, 10 Nov 2005) talk 15 min.
- 22) Zülicke, Ch., 2005: Optimal model resolution and diffusion for the effective simulation of inertia-gravity waves (IAP seminar, 25 Oct 2005) 30 min.
- 21) Zülicke, Ch., 2005: Precipitation and Inertia-Gravity Waves (Workshop with Jens Wickerts group at the Geoforschungszentrum Potsdam, 19 May 2005) talk 15 min.
- 20) Zülicke, Ch., 2005: Horizontaldiffusion muss zweiter Ordnung sein – laut Onsager-Theorie (IAP seminar, 04 Jan 2005) talk 15 min.

- 19) Zülicke, Ch., 2004: EZMW-Vorhersagen für den täglichen Gebrauch (IAP seminar, 14 Dec 2004) talk 15 min.
- 18) Zülicke, Ch., 2004: Trägheitsschwerewellen induziert durch polwärts brechende Rossby-Wellen – LEWIZ-Projekt (IAP colloquium, Kühlungsborn, 28 Oct 2004) talk 1 hr.
- 17) Zülicke, Ch., 2004: Trägheitsschwerewellen induziert durch polwärts brechende Rossby-Wellen – LEWIZ-Projekt (Presentation to the Beirat of the IAP, Kühlungsborn, 11 Oct 2004) talk 15 min.
- 16) Zülicke, Ch. and C. Rudolph, 2004: Energie von Trägheitsschwerewellen – Zusammenfassung der Praktikums-Ergebnisse (IAP seminar, Kühlungsborn, 25 Aug 2004).
- 15) Zülicke, Ch., 2004: Trägheitsschwerewellen (TSW) – Anregung, Ausbreitung und Brechen (IAP seminar, 18 Aug 2004) talk 30 min.
- 14) Zülicke, Ch., 2004: Air-sea fluxes including the effect of the molecular skin layer (Kolloquium des Instituts für Umweltphysik an der Universität Heidelberg; Prof. B. Jähne, 22.04.2004) talk 1 h.
- 13) Zülicke, Ch., 2004: Mesoskalige Modell-Simulation von Gebirgswellen (Seminar at the Institute of Atmospheric Physics, Kühlungsborn, 05.03.2004) talk 30 min.
- 12) Zülicke, Ch., 2004: Generierung von Trägheitsschwerewellen durch eine brechende Rossby-Welle – Eine Fallstudie zum Problem der geostrophischen Anpassung (Seminar der Sektion Physikalische Ozanographie und Messtechnik des Instituts für Ostseeforschung Warnemünde, 27.01.2004) talk 1 h.
- 11) Zülicke, Ch., 2004: Driving of Inertia-Gravity Waves through a Poleward Breaking Rossby Wave - MM5 Case Study for the LEWIZ-K1 campaign (December 1999) – (Colloquium at the Institute of Atmospheric Physics, Kühlungsborn, 08.01.2004) talk 1 h.
- 10) Zülicke, Ch., 2003: Interaction of inertia-gravity waves and convection (Seminar at the Institute of Atmospheric Physics, Kühlungsborn, 09.12.2003) talk 30 min.

- 9) Zülicke, Ch., 2002: MM5-Simulationen von orographisch angeregte Trägheitsschwerewellen - Drei Fallstudien von Andenes – (Seminar at the Institute of Atmospheric Physics, Kühlungsborn, 23.08.2002) talk 30 min.
- 8) Zülicke, Ch., 2002: Inertia-Gravity Waves during Rossby Wave Breaking - MM5 Case Study for LEWIZ-K1 campaign (December 1999) (Colloquium at the Institute of Atmospheric Physics, Kühlungsborn, 16.12.2002) talk 1 h.
- 7) Zülicke, Ch., 2002: Thorpe-Länge... und Mischung (Seminar at the Institute of Atmospheric Physics, Kühlungsborn, 15.11.2002) talk 30 min.
- 6) Zülicke, Ch., 2002: MM5-Simulationen zur LEWIZ-Aktivitäten im Dezember 1999 (Seminar at the Institute of Atmospheric Physics, Kühlungsborn, 23.08.2002) talk 30 min.
- 5) Zülicke, Ch., 2002: Numerical modelling of inertia-gravity waves (Seminar of climate dynamics department of the Institute of Atmospheric Physics, Kühlungsborn; 15.04.2002) talk 30 min.
- 4) Zülicke, Ch., 2001: Kohlenmonoxid-Oxidation auf einer Platinspitze - Theorie für den Effekt von internem Rauschen (Seminar Statistische Physik und nichtlineare Dynamik, Prof.s W. Ebeling und L. Schimansky-Geier, Humboldt-Universität zu Berlin, 07.05.2001) talk 1 h.
- 3) Zülicke, Ch., 2001: CO oxidation on a platinum tip - Theory for dynamic effects of internal noise (Seminar at the Institute of Physical Chemistry and Elektro Chemistry with Prof. R. Imbihl at the University Hannover, 12.03.2001) talk 1 h.
- 2) Zülicke, Ch., 2001: Rauschinduzierte Frontdynamik - Theorie und Simulation (Seminar of the Stochastic Processes Group of Prof. L. Schimansky-Geier, Humboldt-University at Berlin, 22.01.2001) talk 1 h.
- 1) Zülicke Ch., 2000: Exchange of momentum, heat and gases between ocean and atmosphere (Seminar of the Complex Systems Group of A.S. Mikhailov, Fritz-Haber-Institute Berlin, 23.10.2000) talk 1 h.

## **Editorial activities**

### **Reviewer**

for the following journals: J. Atmos. Sol.-Terr. Phys., J. Geophys. Res., J. Atmos. Sci., J. Mar. Sci., Ocean. Dyn., Oceanology, Ocean Sci.

## Editor

- Leibniz-Nordost – semi-annual publication of the five Leibniz Institutes in Mecklenburg-Vorpommern < <http://www.iap-kborn.de> → current issues → Journal Leibniz-Nordost >: operational editor of the IAP (since 2011)