

Andreas Stohl's peer reviewed papers and book contributions

Peer-reviewed journal publications

Submitted

- Keywood, M., M. Kanakidou, **A. Stohl**, C. P. Meyer, K. Tørseth, D. Edwards, J. Burrows, A. M. Thompson, and U. Lohmann (2010): **Fire in the Air – Biomass burning impacts in a changing climate.** Submitted to *Environ. Sci Tech.*
- Stjern, C. W., **A. Stohl**, and J. E. Kristjánsson (2010): **Have aerosols affected trends of visibility and precipitation in Europe?** Submitted to *J. Geophys. Res.*
- Gilman, J. B., J. F. Burkhardt, B. M. Lerner, E. J. Williams, W. C. Kuster, P. D. Goldan, P. C. Murphy, C. Warneke, C. Fowler, S. A. Montzka, B. R. Miller, L. Miller, S. J. Oltmans, T. B. Ryerson, O. R. Cooper, **A. Stohl**, and J. A. de Gouw (2010): **Ozone variability and halogen oxidation within the Arctic and sub-Arctic springtime boundary layer.** *Atmos. Chem. Phys. Discuss.* **10**, 15885-15919.
- Hirdman, D., J. F. Burkhardt, H. Sodemann, S. Eckhardt, A. Jefferson, P. K. Quinn, S. Sharma, J. Ström, and **A. Stohl** (2010): **Long-term trends of black carbon and sulphate aerosol in the Arctic: changes in atmospheric transport and source region emissions.** *Atmos. Chem. Phys. Discuss.* **10**, 12133-12184.
- Brioude, J., R. W. Portmann, J. S. Daniel, O. R. Cooper, G. J. Frost, K. H. Rosenlof, C. Granier, A. R. Ravishankara, S. Montzka, and **A. Stohl** (2010): **Variations in ozone depletion potentials of very short lived substances with season and emission region.** Submitted to *Geophys. Res. Lett.*
- Pikridas, M., A. Bougiatioti, L. Hildebrandt, G. J. Engelhart, E. Kostenidou, C. Mohr, A. S. H. Prevot, G. Kouvarakis, P. Zarmpas, J. F. Burkhardt, B.-H. Lee, M. Psichoudaki, N. Mihalopoulos, C. Pilinis, **A. Stohl**, U. Baltensperger, M. Kulmala, and S. N. Pandis (2010): **The Finokalia aerosol measurement experiment – 2008 (FAME-08): An overview.** *Atmos. Chem. Phys. Discuss.* **10**, 6641-6679.
- Elguindi, N., C. Ordóñez, V. Thouret, J. Flemming, O. Stein, V. Huijnen, P. Moinat, A. Inness, V.-H. Peuch, **A. Stohl**, S. Turquety, J.-P. Cammas, and M. Schultz (2010): **Current status of the ability of the GEMS/MACC models to reproduce the tropospheric CO vertical distribution as measured by MOZAIC.** *Geosci. Model Dev. Discuss.* **3**, 391-449.
- Begoin, M., A. Richter, L. Kaleschke, **A. Stohl** and J. P. Burrows (2009): **Satellite observations of long-range transport of a large BrO cloud in the Arctic.** *Atmos. Chem. Phys. Discuss.* **9**, 20407-20428.

In press

- Kristiansen, N. I., **A. Stohl**, A. J. Prata, A. Richter, S. Eckhardt, P. Seibert, A. Hoffmann, C. Ritter, L. Bitar, T. Duck, and K. Stebel (2010): **Remote sensing and inverse transport modeling of the Kasatochi eruption sulfur dioxide cloud.** Accepted by *J. Geophys. Res.*
- Gimeno, L., A. Drumond, R. Nieto, R. Trigo, and **A. Stohl** (2010): **On the origin of continental precipitation.** Accepted by *Geophys. Res. Lett.*
- Birmili, W., T. Göbel, A. Sonntag, L. Ries, R. Sohmer, S. Gilge, I. Levin, and **A. Stohl** (2010): **A case of transatlantic aerosol transport detected at the Schneefernerhaus Observatory (2650 m) on the northern edge of the Alps.** Accepted by *Met. Zeitschrift*
- Bitar, L., T. J. Duck, N. I. Kristiansen, **A. Stohl**, and S. Beauchamp (2010): **Lidar observations of Kasatochi volcano aerosols in the troposphere and stratosphere.** Accepted by *J. Geophys. Res.*

Published

170. Jonson, J. E., **A. Stohl**, A. M. Fiore, P. Hess, S. Szopa, O. Wild, G. Zeng, F. J. Dentener, A. Lupu, M. G. Schultz, B. N. Duncan, K. Sudo, P. Wind, M. Schulz, E. Marmer, C. Cuvelier, T. Keating, A. Zuber, A. Valdebenito, V. Dorokhov, H. De Backer, J. Davies, G. H. Chen, B. Johnson, D. W. Tarasick, R. Stübi, M. J. Newchurch, P. von der Gathen, W. Steinbrecht, and H. Claude (2009): **A multi-model analysis of vertical ozone profiles.** *Atmos. Chem. Phys.* **10**, 5759-5783.
169. Kim, J., S. Li, K.-R. Kim, **A. Stohl**, J. Mühle, S.-K. Kim, M.-K. Park, D.-J. Kang, G. Lee, C. M. Harth, P. K. Salameh, and R. F. Weiss (2010): **Regional atmospheric emissions determined from measurements at Jeju Island, Korea: Halogenated compounds from China.** *Geophys. Res. Lett.* **37**, L12801, doi:10.1029/2010GL043263.
168. Paris, J.-D., P. Ciais, P. Nédélec, **A. Stohl**, B. D. Belan, M. Yu. Arshinov, C. Carouge, G. Golitsyn, I. G. Granberg (2010): **Transcontinental flights over Siberia: overview of first results from the YAK AEROSIB project.** *Bull. Amer. Met. Soc.* **91**, 625-641.
167. Saito, T., Y. Yokouchi, **A. Stohl**, S. Taguchi, and H. Mukai (2010): **Large emissions of perfluorocarbons in East Asia deduced from continuous atmospheric measurements.** *Environ. Sci. Tech.* **44**, 4089-4095.
166. **Stohl, A.**, J. Kim, S. Li, S. O'Doherty, J. Mühle, P. K. Salameh, T. Saito, M. K. Vollmer, D. Wan, R. F. Weiss, B. Yao, Y. Yokouchi, and L. X. Zhou (2010): **Hydrochlorofluorocarbon and hydrofluorocarbon emissions in East Asia determined by inverse modeling.** *Atmos. Chem. Phys.* **10**, 3545-3560.
165. Paris, J.-D., **A. Stohl**, P. Ciais, P. Nédélec, B. D. Belan, M. Yu. Arshinov, and M. Ramonet (2010): **Source-receptor relationships for airborne measurements of CO₂, CO and O₃ above Siberia: a cluster-based approach.** *Atmos. Chem. Phys.* **10**, 1671-1687.
164. Hirdman, D., H. Sodemann, S. Eckhardt, J. F. Burkhardt, A. Jefferson, T. Mefford, P. K. Quinn, S. Sharma, J. Ström, and **A. Stohl** (2010): **Source identification of short-lived air pollutants in the Arctic using statistical analysis of measurement data and particle dispersion model output.** *Atmos. Chem. Phys.* **10**, 669-693.
163. **Stohl, A.**, and H. Sodemann (2010): **Characteristics of atmospheric transport into the Antarctic troposphere.** *J. Geophys. Res.* **115**, D02305, doi:10.1029/2009JD012536.
162. Cooper, O. R., D. D. Parrish, **A. Stohl**, M. Trainer, P. Nédélec, V. Thouret, J. P. Cammas, S. J. Oltmans, B. J. Johnson, D. Tarasick, T. Leblanc, I. S. McDermid, D. Jaffe, R. Gao, J. Stith, T. Ryerson, K. Aikin, T. Campos, A. Weinheimer, and M. A. Avery (2010): **Increasing springtime ozone mixing ratios in the free troposphere over western North America.** *Nature* **463**, 344-348.
161. Trickl, T., H. Feldmann, M., H.-J. Kanter, H.-E. Scheel, M. Sprenger, **A. Stohl**, and H. Wernli (2010): **Forecasted deep stratospheric intrusions over Central Europe: case studies and climatologies.** *Atmos. Chem. Phys.* **10**, 449-524.
160. Warneke, C., K. D. Froyd, J. Brioude, R. Bahreini, C. A. Brock, J. Cozic, J. A. de Gouw, D. W. Fahey, R. Ferrare, J. S. Holloway, A. M. Middlebrook, L. Miller, S. Montzka, J. P. Schwarz, H. Sodemann, J. R. Spackman, and **A. Stohl** (2010): **An important contribution to springtime Arctic aerosol from biomass burning in Russia.** *Geophys. Res. Lett.* **37**, L01801, doi:10.1029/2009GL041816.
159. Paris, J.-D. , **A. Stohl**, P. Nédélec, M. Yu. Arshinov, M. V. Panchenko, V. P. Shmargunov, K. S. Law, B. D. Belan, and P. Ciais (2009): **Wildfire smoke in the Siberian Arctic in summer: source characterization and plume evolution from airborne measurements.** *Atmos. Chem. Phys.* **9**, 9315-9327.
158. Sodemann, H., and **A. Stohl** (2009): **Asymmetries in the moisture origin of Antarctic precipitation.** *Geophys. Res. Lett.* **36**, L22803, doi:10.1029/2009GL040242.

157. Lammel, G., J. Klánová, J. Kohoutek, R. Prokeš, L. Ries, and **A. Stohl** (2009): Observation and origin of organochlorine compounds and polycyclic aromatic hydrocarbons in the free troposphere over central Europe. *Environ. Poll.* **157**, 3264-3271.
156. Monks, P. S., C. Granier, S. Fuzzi, **A. Stohl**, M. L. Williams, H. Akimoto, M. Amann, A. Baklanov, U. Baltensperger, I. Bey, N. Blake, R. S. Blake, K. Carslaw, O. R. Cooper, F. Dentener, E. Frakou, G. J. Frost, S. Generoso, P. Ginoux, V. Grewe, A. Guenther, H. C. Hansson, S. Henne, J. Hjorth, A. Hofzumahaus, H. Huntrieser, I. S. A. Isaksen, M. E. Jenkin, J. Kaiser, M. Kanakidou, Z. Klimont, M. Kulmala, P. Laj, M. G. Lawrence, J.D. Lee, C. Liousse, M. Maione, G. McFig-gans, A. Metzger, A. Mieville, N. Moussiopoulos, J. J. Orlando, C. D. O'Dowd, P. I. Palmer, D. Parrish, A. Petzold, U. Platt, U. Poeschl, A. S. H. Prévôt, C. E. Reeves, S. Reimann, Y. Rudich, K. Sellegri, R. Steinbrecher, D. Simpson, H. ten Brink, J. Theloke, G. R. van der Werf, R. Vautard, V. Vestreng, Ch. Vlachokostas, and R. von Glasow (2009): Atmospheric composition change – global and regional air quality. *Atmos. Environ.* **43**, 5268-5350.
155. Eckhardt, S., K. Breivik, Y.-F. Li, S. Manø, and **A. Stohl** (2009): Source regions of some persistent organic pollutants measured in the atmosphere at Birkenes, Norway. *Atmos. Chem. Phys.* **9**, 6597-6610.
154. Cammas, J.-P., J. Brioude, J.-P. Chaboureau, J. Duron, C. Mari, P. Mascart, P. Nédélec, H. Smit, H.-W. Pätz, A. Volz-Thomas, **A. Stohl**, and M. Fromm (2009): Injection in the lower stratosphere of biomass fire emissions followed by long-range transport: a MOZAIC case study. *Atmos. Chem. Phys.* **9**, 5829-5846.
153. Fiebig, M., C. R. Lunder, and **A. Stohl** (2009): Tracing biomass burning aerosol from South America to Troll Research Station, Antarctica. *Geophys. Res. Lett.* **36**, L14815, doi:10.1029/2009GL038531.
152. Fiedler, V., F. Arnold, H. Schlager, A. Dörnbrack, L. Pirjola, and **A. Stohl** (2009): East Asian SO₂ pollution plume over Europe – Part 2: Evolution and potential impact. *Atmos. Chem. Phys.* **9**, 4729-4745.
151. Fiedler, V., R. Nau, S. Ludmann, F. Arnold, H. Schlager, and **A. Stohl** (2009): East Asian SO₂ pollution plume over Europe – Part 1: Airborne trace gas measurements and source identification by particle dispersion model simulations. *Atmos. Chem. Phys.* **9**, 4717-4728.
150. Hirdman, D., K. Aspmo, J. F. Burkhart, S. Eckhardt, H. Sodemann, and **A. Stohl** (2009): Transport of mercury in the Arctic atmosphere: Evidence for a spring-time net sink and summer-time source. *Geophys. Res. Lett.* **36**, L12814, doi:10.1029/2009GL038345.
149. Ding, A., T. Wang, L. Xue, J. Gao, **A. Stohl**, H. Lei, D. Jin, Y. Ren, X. Wang, X. Wei, Y. Qi, J. Liu, and X. Zhang (2009): Transport of north China air pollution by midlatitude cyclones: Case study of aircraft measurements in summer 2007. *J. Geophys. Res.* **114**, D08304, doi:10.1029/2008JD011023.
148. P. Massoli, T. S. Bates, P. K. Quinn, D. A. Lack, T. Baynard, B. M. Lerner, S. C. Tucker, J. Brioude, **A. Stohl**, and E. J. Williams (2009): Aerosol optical and hygroscopic properties during TexAQS-GoMACCS 2006 and their impact on aerosol direct radiative forcing. *J. Geophys. Res.* **114**, D00F07, doi:10.1029/2008JD011604.
147. Amiridis, V., D. S. Balis, E. Giannakaki, **A. Stohl**, S. Kazadzis, M. E. Koukouli, and P. Zanis (2009): Optical characteristics of biomass burning aerosols over Southeastern Europe determined from UV-Raman lidar measurements. *Atmos. Chem. Phys.* **9**, 2431-2440.
146. **Stohl, A.**, P. Seibert, J. Arduini, S. Eckhardt, P. Fraser, B. R. Greally, C. Lunder, M. Maione, J. Mühlle, S. O'Doherty, R. G. Prinn, S. Reimann, T. Saito, N. Schmidbauer, P.G. Simmonds, M. K. Vollmer, R. F. Weiss, and Y. Yokouchi (2009): An analytical inversion method for determining regional and global emissions of greenhouse gases: Sensitivity studies and application to halocarbons. *Atmos. Chem. Phys.* **9**, 1597-1620.
145. Bates, T. S., P. K. Quinn, D. Coffman, K. Schulz, D. S. Covert, J. E. Johnson, E. J. Williams, B. M. Lerner, W. M. Angevine, S. C. Tucker, W. A. Brewer, and **A. Stohl** (2008): Boundary layer

- aerosol chemistry during TexAQS/GoMACCS 2006: Insights into aerosol sources and transformation processes. *J. Geophys. Res.* **113**, D00F01, doi:10.1029/2008JD010023.
144. Stohl, A. (2008): The travel-related carbon dioxide emissions of atmospheric researchers. *Atmos. Chem. Phys.* **8**, 6499-6504.
143. Paris, J.-D., P. Ciais, P. Nédélec, M. Ramonet, B. D. Belan, M. Y. Arshinov, G. S. Golitsyn, I. Granberg, A. Stohl, G. Cayez, G. Athier, F. Boumard, J.-M. Cousin (2008): The YAK-AEROSIB transcontinental aircraft campaigns: new insights on the transport of CO₂, CO and O₃ across Siberia. *Tellus* **60B**, 551-568.
142. Mari, C. H., G. Cailley, L. Corre, M. Saunois, J. L. Attié, V. Thouret, and A. Stohl (2008): Tracing biomass burning plumes from the Southern Hemisphere during the AMMA 2006 wet season experiment. *Atmos. Chem. Phys.* **8**, 3951-3961.
141. Eckhardt, S., A. J. Prata, P. Seibert, K. Stebel, and A. Stohl (2008): Estimation of the vertical profile of sulfur dioxide injection into the atmosphere by a volcanic eruption using satellite column measurements and inverse transport modeling. *Atmos. Chem. Phys.* **8**, 3881-3897.
140. Behrenfeldt, U., R. Krejci, J. Ström, and A. Stohl (2008): Chemical properties of Arctic aerosol particles collected at the Zeppelin station during the aerosol transition period in May and June of 2004. *Tellus* **60B**, 405-415.
139. Engvall, A.-C., R. Krejci, J. Ström, A. Minikin, R. Treffeisen, A. Stohl, and A. Herber (2008): In-situ airborne observations of the microphysical properties of the Arctic tropospheric aerosol during late spring and summer. *Tellus* **60B**, 392-404.
138. Brock, C. A., A. P. Sullivan, R. E. Peltier, R. J. Weber, A. Wollny, J. A. de Gouw, A. M. Middlebrook, E. L. Atlas, A. Stohl, M. K. Trainer, O. R. Cooper, F. C. Fehsenfeld, G. J. Frost, J. S. Holloway, G. Hübler, J. A. Neuman, T. B. Ryerson, C. Warneke, and J. C. Wilson (2008): Sources of particulate matter in the Northeastern United States in summer: 2. Evolution of chemical and microphysical properties. *J. Geophys. Res.* **113**, D08302, doi:10.1029/2007JD009241.
137. de Gouw, J. A., C. A. Brock, E. L. Atlas, T. S. Bates, F. C. Fehsenfeld, P. D. Goldan, J. S. Holloway, W. C. Kuster, B. M. Lerner, B. M. Matthew, A. M. Middlebrook, T. B. Onasch, R. E. Peltier, P. K. Quinn, C. J. Senff, A. Stohl, A. P. Sullivan, M. Trainer, C. Warneke, R. J. Weber, and E. J. Williams (2008): Sources of particulate matter in the Northeastern United States in summer: 1. Direct emissions and secondary formation of organic matter in urban plumes. *J. Geophys. Res.* **113**, D08301, doi:10.1029/2007JD009243.
136. Peltier, R.E., A. H. Hecobian, R. J. Weber, A. Stohl, E. L. Atlas, D. D. Riemer, D. R. Blake, E. Apel, T. Campos, and T. Karl (2008): Investigating the sources and atmospheric processes of fine particles from Asia and the Northwestern United States measured during INTEX-B. *Atmos. Chem. Phys.* **8**, 1835-1853.
135. Quinn, P. K., T. S. Bates, E. Baum, N. Doubleday, A. Fiore, M. Flanner, A. Fridlind, T. J. Garrett, D. Koch, S. Menon, D. Shindell, A. Stohl, and S. G. Warren (2008): Short-lived pollutants in the Arctic: their climate impact and possible mitigation strategies. *Atmos. Chem. Phys.* **8**, 1723-1735.
134. Stohl, A., C. Forster, and H. Sodemann (2008): Remote sources of water vapor forming precipitation on the Norwegian west coast at 60° N - a tale of hurricanes and an atmospheric river. *J. Geophys. Res.* **113**, D05102, doi:10.1029/2007JD009006.
133. Wang, X., A. Boselli, L. D'Avino, G. Pisani, N. Spinelli, A. Amodeo, A. Chaikovsky, M. Wiegnér, S. Nickovic, A. Papayannis, M. R. Perrone, V. Rizi, L. Sauvage, and A. Stohl (2008): Volcanic dust characterization by EARLINET during Etna's eruptions in 2001-2002. *Atmos. Environ.* **42**, 893-905.
132. Cooper, O. R., M. Trainer, A. M. Thompson, S. J. Oltmans, D. W. Tarasick, J. C. Witte, A. Stohl, S. Eckhardt, J. Lelieveld, M. J. Newchurch, B. J. Johnson, L. Kalnajs, M. K. Dubey, T. Leblanc, I. S. McDermid, G. Forbes, D. Wolfe, T. Carey-Smith, G. A. Morris, B. Lefer, B. Rappenglück, E. Joseph, F. Schmidlin, J. Meagher, F. C. Fehsenfeld, T. J. Keating, R. A. Van Curen, and K. Min-

- schwaner (2007): Evidence for a recurring eastern North America upper tropospheric ozone maximum during summer. *J. Geophys. Res.* **112**, D23304, doi:10.1029/2007JD008710.
131. Kallenborn, R., G. Christensen, A. Evensen, M. Schlabach, and **A. Stohl** (2007): Atmospheric transport of persistent organic pollutants (POPs) to Bjørnøya (Bear Island). *J. Environ. Monit.* **9**, 1082-1091, doi:10.1039/b707757m.
130. Chen, G., L. G. Huey, J. H. Crawford, J. R. Olson, M. A. Hutterli, S. Sjostedt, D. Tanner, J. Dibb, B. Lefer, N. Blake, D. Davis, and **A. Stohl** (2007): An assessment of the polar HO_x photochemical budget based on 2003 Summit Greenland field observations. *Atmos. Environ.* **41**, 7806-7820.
129. Petzold, A., B. Weinzierl, H. Huntrieser, **A. Stohl**, E. Real, J. Cozic, M. Fiebig, J. Hendricks, A. Lauer, K. Law, A. Minikin, A. Roiger, H. Schlager, and E. Weingartner (2007): Perturbation of the European free troposphere aerosol by North American forest fire plumes during the ICARTT-ITOP experiment in summer 2004. *Atmos. Chem. Phys.* **7**, 5105-5127.
128. Prata, A. J., S. C. Carn, **A. Stohl**, and J. Kerkmann (2007): Long range transport and fate of a stratospheric volcanic cloud from Soufriere Hills volcano, Montserrat. *Atmos. Chem. Phys.* **7**, 5093-50103.
127. Eckhardt, S., K. Breivik, S. Manø, and **A. Stohl** (2007): Record high peaks in PCB concentrations in the Arctic atmosphere due to long-range transport of biomass burning emissions. *Atmos. Chem. Phys.* **7**, 4527-4536.
126. Brioude, J., O. R. Cooper, M. Trainer, T. B. Ryerson, J. S. Holloway, T. Baynard, J. Peischl, C. Warneke, J. A. Neuman, J. De Gouw, A. Stohl, S. Eckhardt, G. J. Frost, S. A. McKeen, E.-Y. Hsie, F. C. Fehsenfeld, and P. Nédélec (2007): Mixing between a stratospheric intrusion and a biomass burning plume. *Atmos. Chem. Phys.* **7**, 4229-4235.
125. Sjostedt, S. J., L. G. Huey, D. J. Tanner, J. Peischl, G. Chen, J. E. Dibb, B. Lefer, M. A. Hutterli, A. J. Beyersdorf, N. J. Blake, D. R. Blake, D. Sueper, T. Ryerson, J. Burkhart, and **A. Stohl** (2007): Observations of hydroxyl and the sum of peroxy radicals at Summit, Greenland during summer 2003. *Atmos. Environ.* **41**, 5122-5137.
124. Schultz, M., **A. Stohl**, and B. Vogel (2007): Transportprozesse in der Atmosphäre. *Chemie in Unserer Zeit* **41**, 266-274.
123. Treffeisen, R., P. Turnved, J. Ström, A. Herber, J. Bareiss, A. Helbig, R. S. Stone, W. Hoyningen-Hüne, R. Krejci, **A. Stohl**, and R. Neuber (2007): Arctic smoke – aerosol characteristics during a record smoke event in the European Arctic and its radiative impact. *Atmos. Chem. Phys.* **7**, 3035-3053.
122. Huntrieser, H., H. Schlager, A. Roiger, M. Lichtenstern, U. Schumann, C. Kurz, D. Brunner, C. Schwierz, A. Richter, and **A. Stohl** (2007): Lightning-produced NO_x over Brazil during TROCCINOX: airborne measurements in tropical and subtropical thunderstorms and the importance of mesoscale convective systems. *Atmos. Chem. Phys.* **7**, 2987-3013.
121. Duck, T. J., B. J. Firanski, D. B. Millet, A. H. Goldstein, J. Allen, R. Holzinger, D. R. Worsnop, A. B. White, **A. Stohl**, C. S. Dickinson, and A. van Donkelaar (2007): Transport of forest fire emissions from Alaska and the Yukon Territory to Nova Scotia during summer 2004. *J. Geophys. Res.* **112**, D10S44, doi:10.1029/2006JD007716.
120. Smith, A. M., W. C. Keene, J. R. Maben, A. A. P. Pszenny, E. Fischer, and **A. Stohl** (2007): Ammonia sources, transport, transformation, and deposition in coastal New England during summer. *J. Geophys. Res.* **112**, D10S08, doi:10.1029/2006JD007574.
119. Real, E., K. S. Law, B. Weinzierl, M. Fiebig, A. Petzold, O. Wild, J. Methven, S. Arnold, **A. Stohl**, H. Hunrieser, A. Roiger, H. Schlager, D. Stewart, M. Avery, G. Sachse, E. Browell, R. Ferrare, and D. Blake (2007): Processes influencing ozone levels in Alaskan forest fire plumes during long-range transport over the North Atlantic. *J. Geophys. Res.* **112**, D10S41, doi:10.1029/2006JD007576.
118. Forster, C., **A. Stohl**, and P. Seibert (2007): Parameterization of convective transport in a Lagrangian particle dispersion model and its evaluation. *J. Appl. Met. Clim.* **46**, 403-422.

117. Avey, L., T. J. Garrett, and **A. Stohl** (2007): Evaluation of the aerosol indirect effect using satellite, tracer transport model, and aircraft data from the International Consortium for Atmospheric Research on Transport and Transformation. *J. Geophys. Res.* **112**, D10S33, doi:10.1029/2006JD007581.
116. Parrish, D. D., A. Stohl, C. Forster, E. L. Atlas, D. R. Blake, P. D. Goldan, W. C. Kuster, and J. de Gouw (2007): Effects of mixing on evolution of hydrocarbon ratios in the troposphere. *J. Geophys. Res.* **112**, D10S34, doi:10.1029/2006JD007583.
115. Law, K. S., and **A. Stohl** (2007): Arctic air pollution: Origins and impacts. *Science* **315**, 1537-1540, doi: 10.1126/science.1137695.
114. Speidel, M., R. Nau, F. Arnold, H. Schlager, and **A. Stohl** (2007): Sulfur dioxide measurements in the lower, middle and upper troposphere: Deployment of an aircraft-based chemical ionization mass spectrometer with permanent in-flight calibration. *Atmos. Environ.* **41**, 2427-2437.
113. **Stohl, A.**, C. Forster, H. Huntrieser, H. Mannstein, W. W. McMillan, A. Petzold, H. Schlager, and B. Weinzierl (2007): Aircraft measurements over Europe of an air pollution plume from Southeast Asia – aerosol and chemical characterization. *Atmos. Chem. Phys.* **7**, 913-937.
112. **Stohl, A.**, T. Berg, J. F. Burkhardt, A. M. Fjæraa, C. Forster, A. Herber, Ø. Hov, C. Lunder, W. W. McMillan, S. Oltmans, M. Shiobara, D. Simpson, S. Solberg, K. Stebel, J. Ström, K. Tørseth, R. Treffeisen, K. Virkkunen, K. E. Yttri (2007): Arctic smoke – record high air pollution levels in the European Arctic due to agricultural fires in Eastern Europe. *Atmos. Chem. Phys.* **7**, 511-534.
111. Quinn, P. K., T. S. Bates, D. Coffman, T. B. Onasch, D. Worsnop, T. Baynard, J. A. de Gouw, P. D. Goldan, W. C. Kuster, E. Williams, J. M. Roberts, B. Lerner, **A. Stohl**, A. Pettersson, and E. R. Lovejoy (2006): Impacts of sources and aging on submicrometer aerosol properties in the marine boundary layer across the Gulf of Maine. *J. Geophys. Res.* **111**, D23S36, doi:10.1029/2006JD007582.
110. Cooper, O. R., **A. Stohl**, M. Trainer, A. M. Thompson, J. C. Witte, S. J. Oltmans, G. Morris, K. E. Pickering, J. H. Crawford, G. Chen, R. C. Cohen, T. H. Bertram, P. Wooldridge, A. Perring, W. H. Brune, J. Merrill, J. L. Moody, D. Tarasick, P. Nédélec, G. Forbes, M. J. Newchurch, F. J. Schmidlin, B. J. Johnson, S. Turquety, S. L. Baughcum, X. Ren, F. C. Fehsenfeld, J. F. Meagher, N. Spichtinger, C. C. Brown, S. A. McKeen, I. S. McDermid, and T. Leblanc (2006): Large upper tropospheric ozone enhancements above midlatitude North America during summer: In situ evidence from the IONS and MOZAIC ozone monitoring network. *J. Geophys. Res.* **111**, D24S05, doi:10.1029/2006JD007306.
109. Methven, J., S. R. Arnold, **A. Stohl**, M. J. Evans, M. Avery, K. Law, A. C. Lewis, P. S. Monks, D. D. Parrish, C. E. Reeves, H. Schlager, E. Atlas, D. R. Blake, H. Coe, J. Crosier, F. M. Flocke, J. S. Holloway, J. R. Hopkins, J. McQuaid, R. Purvis, B. Rappenglück, H. B. Singh, N. M. Watson, L. K. Whalley, and P. I. Williams (2006): Establishing Lagrangian connections between observations within air masses crossing the Atlantic during the International Consortium for Atmospheric Research on Transport and Transformation experiment. *J. Geophys. Res.* **111**, D23S62, doi:10.1029/2006JD007540.
108. Riddle, E. E., P. B. Voss, **A. Stohl**, D. Holcomb, D. Maczka, K. Washburn, and R. W. Talbot (2006): Trajectory model validation using newly developed altitude-controlled balloons during the International Consortium for Atmospheric Research on Transport and Transformations 2004 campaign. *J. Geophys. Res.* **111**, D23S57, doi:10.1029/2006JD007456.
107. **Stohl, A.**, E. Andrews, J. F. Burkhardt, C. Forster, A. Herber, S. W. Hoch, D. Kowal, C. Lunder, T. Mefford, J. A. Ogren, S. Sharma, N. Spichtinger, K. Stebel, R. Stone, J. Ström, K. Tørseth, C. Wehrli, and K. E. Yttri (2006): Pan-Arctic enhancements of light absorbing aerosol concentrations due to North American boreal forest fires during summer 2004. *J. Geophys. Res.* **111**, D22214, doi:10.1029/2006JD007216.
106. Garrett, T. J., L. Avey, P. I. Palmer, **A. Stohl**, J. A. Neuman, C. A. Brock, T. B. Ryerson, and J. S. Holloway (2006): Quantifying wet scavenging processes in aircraft observations of nitric acid and cloud condensation nuclei. *J. Geophys. Res.* **111**, D23S51, doi:10.1029/2006JD007416.

105. Fischer, E., A. Pszenny, W. Keene, J. Maben, A. Smith, [A. Stohl](#), and R. Talbot (2006): Nitric acid phase partitioning and cycling in the New England coastal atmosphere. *J. Geophys. Res.* **111**, D23S09, doi:10.1029/2006JD007328.
104. Morris, G. A., S. Hersey, A. M. Thompson, S. Pawson, J. E. Nielsen, P. R. Colarco, W. W. McMillan, [A. Stohl](#), S. Turquety, J. Warner, B. A. Johnson, T. L. Kucsera, D. E. Larko, S. J. Oltmans, and J. C. Witte (2006): Alaskan and Canadian forest fires exacerbate ozone pollution over Houston, Texas, on 19 and 20 July 2004. *J. Geophys. Res.* **111**, D24S03, doi:10.1029/2006JD007090.
103. Millet, D. B., A. H. Goldstein, R. Holzinger, B. J. Williams, J. D. Allan, J.-L. Jimenez, D. R. Worsnop, J. M. Roberts, A. B. White, R.C. Hudman, I. T. Bertschi, and [A. Stohl](#) (2006): Chemical characteristics of North American surface-layer outflow: Insights from Chebogue Point, Nova Scotia. *J. Geophys. Res.* **111**, D23S53, doi:10.1029/2006JD007287.
102. Warneke, C., J. A. de Gouw, [A. Stohl](#), O. R. Cooper, P. D. Goldan, W. C. Kuster, J. S. Holloway, E. Williams, B. M. Lerner, S. A. McKeen, M. Trainer, F. C. Fehsenfeld, E. L. Atlas, S. G. Donnelly, V. Stroud, A. Lueb, and S. Kato (2006): Biomass burning and anthropogenic sources of CO over New England in the summer 2004. *J. Geophys. Res.* **111**, D23S15, doi:10.1029/2005JD006878.
101. Owen, R. C., O. R. Cooper, [A. Stohl](#), and R. E. Honrath (2006): An analysis of the mechanisms of North American pollutant transport to the Central North Atlantic lower free troposphere. *J. Geophys. Res.* **111**, D23S58, doi:10.1029/2006JD007062.
100. Neuman, J. A., D. D. Parrish, M. Trainer, T. B. Ryerson, J. S. Holloway, J. B. Nowak, A. Swanson, F. Flocke, J. M. Roberts, S. S. Brown, H. Stark, R. Sommariva, [A. Stohl](#), R. Peltiers, R. Weber, A. Wollny, D. T. Sueper, G. Hubler, and F. C. Fehsenfeld (2006): Reactive nitrogen transport and photochemistry in urban plumes over the North Atlantic Ocean. *J. Geophys. Res.* **111**, D23S54, doi:10.1029/2005JD007010.
99. [Stohl, A.](#) (2006): Characteristics of atmospheric transport into the Arctic troposphere. *J. Geophys. Res.* **111**, D11306, doi:10.1029/2005JD006888.
98. De Gouw, J. A., C. Warneke, [A. Stohl](#), A. G. Wollny, C. A. Brock, O. R. Cooper, J. S. Holloway, M. Trainer, F. C. Fehsenfeld, E. L. Atlas, S. G. Donnelly, V. Stroud, and A. Lueb (2006): Volatile organic compound composition of merged and aged forest fire plumes from Alaska and western Canada. *J. Geophys. Res.* **111**, D10303, doi:10.1029/2005JD006175.
97. Brown, S. S., J. A. Neuman, T. B. Ryerson, M. Trainer, W. P. Dubé, J. S. Holloway, C. Warneke, J. A. de Gouw, S. G. Donnelly, E. Atlas, B. Matthew, A. M. Middlebrook, R. Peltier, R. J. Weber, [A. Stohl](#), J. F. Meagher, F. C. Fehsenfeld, and A. R. Ravishankara (2006): Nocturnal odd-oxygen budget and its implications for ozone loss in the lower troposphere. *Geophys. Res. Lett.* **33**, L08801, doi:10.1029/2006GL025900.
96. Beirle, S., N. Spichtinger, [A. Stohl](#), K. Cummins, T. Turner, D. Boccippio, O. R. Cooper, M. Wennig, M. Grzegorski, U. Platt, and T. Wagner (2006): Estimating the NO_x produced by lightning from GOME and NLNDN data: A case study. *Atmos. Chem. Phys.* **6**, 1075-1089.
95. Cristofanelli, P., P. Bonasoni, L. Tositti, U. Bonafè, F. Calzolari, F. Evangelisti, S. Sandrini, and [A. Stohl](#) (2006): A six-year analysis of stratospheric intrusions and their influence on ozone at Mt. Cimone (2165 m above sea level). *J. Geophys. Res.* **111**, D03306, doi:10.1029/2005JD006553.
94. Damoah, R., N. Spichtinger, R. Servranckx, M. Fromm, E. W. Eloranta, I. A. Razenkov, P. James, M. Shulski, C. Forster, and [A. Stohl](#) (2006): A case study of pyro-convection using transport model and remote sensing data. *Atmos. Chem. Phys.* **6**, 173-185.
93. [Stohl, A.](#), and P. James (2005): A Lagrangian analysis of the atmospheric branch of the global water cycle. Part II: Moisture transports between the Earth's ocean basins and river catchments. *J. Hydrometeorol.* **6**, 961-984.
92. Cooper, O., [A. Stohl](#), G. Hübner, E. Y. Hsie, D. D. Parrish, A. F. Tuck, G. N. Kiladis, S. J. Oltmans, B. J. Johnson, M. Shapiro, J. L. Moody, and A. Lefohn (2005): Direct transport of midlatitude stra-

- tospheric ozone into the lower troposphere and marine boundary layer of the tropical Pacific Ocean. *J. Geophys. Res.* **110**, D23310, doi:10.1029/2005JD005783.
91. Valentin, M., R. Matthey, M. Frioud, M. K. Srivastava, S. Eckhardt, and A. Stohl (2005): Backscatter lidar observation of the aerosol stratification in the lower troposphere during winter Bise: a case study. *Meteorol. Zeitschrift* **14**, 663-669, doi:10.1127/0941-2948/2005/0046.
90. Stohl, A., C. Forster, A. Frank, P. Seibert, and G. Wotawa (2005): Technical Note : The Lagrangian particle dispersion model FLEXPART version 6.2. *Atmos. Chem. Phys.* **5**, 2461-2474.
89. Papayannis, A., D. Balis, P. Zanis, E. Galani, H. Wernli, C. Zerefos, A. Stohl, S. Eckhardt, and V. Amiridis (2005): Sampling of an STT event over the Eastern Mediterranean region by lidar and electrochemical sonde. *Ann. Geophys.* **23**, 2039-2050.
88. Müller, D., I. Mattis, U. Wandinger, A. Ansmann, D. Althausen, and A. Stohl (2005): Raman lidar observations of aged Siberian and Canadian forest-fire smoke in the free troposphere over Germany in 2003: Microphysical particle characterization. *J. Geophys. Res.* **110**, D17201, doi:10.1029/2004JD005756.
87. Nédélec, P., V. Thouret, J. Brioude, B. Sauvage, J.-P. Cammas, and A. Stohl (2005): Extreme CO concentrations in the upper troposphere over North-East Asia in June 2003 from the in-situ MOZAIC aircraft data. *Geophys. Res. Lett.* **32**, L14807, doi:10.1029/2005GL023141.
86. Cooper, O., A. Stohl, S. Eckhardt, D. D. Parrish, S. J. Oltmans, B. J. Johnson, P. Nédélec, F. J. Schmidlin, M. J. Newchurch, Y. Kondo, and K. Kazayuki (2005): A springtime comparison of tropospheric ozone and transport pathways on the east and west coasts of the United States. *J. Geophys. Res.* **110**, D05S90, doi:10.1029/2004JD005183.
85. Huntrieser, H., J. Heland, H. Schlager, C. Forster, A. Stohl, H. Aufmhoff, F. Arnold, H. E. Scheel, M. Campana, S. Gilge, R. Eixmann, and O. Cooper (2005): Intercontinental air pollution transport from North America to Europe: Experimental evidence from aircraft measurements and surface observations. *J. Geophys. Res.* **110**, D01305, doi:10.1029/2004JD005045.
84. San José, R., A. Stohl, K. Karatzas, T. Bohler, P. James, and J. L. Peréz (2005): A modeling study of an extraordinary night time ozone episode over Madrid domain. *Environ. Mod. Softw.* **20**, 587-593.
83. James, P., A. Stohl, N. Spichtinger, S. Eckhardt, C. Forster (2004): Climatological aspects of the extreme European rainfall of August 2002 and a trajectory method for estimating the associated evaporative source regions. *Nat. Hazards Earth Sys. Sci.* **4**, 733-746.
82. Spichtinger, N., R. Damoah, S. Eckhardt, C. Forster, P. James, S. Beirle, T. Marbach, T. Wagner, P. C. Novelli, and A. Stohl (2004): Boreal forest fires in 1997 and 1998: a seasonal comparison using transport model simulations and measurement data. *Atmos. Chem. Phys.* **4**, 1857-1868.
81. Damoah, R., N. Spichtinger, C. Forster, P. James, I. Mattis, U. Wandinger, S. Beirle, and A. Stohl (2004): Around the world in 17 days – hemispheric-scale transport of forest fire smoke from Russia in May 2003. *Atmos. Chem. Phys.* **4**, 1311-1321.
80. Stohl, A., and P. James (2004): A Lagrangian analysis of the atmospheric branch of the global water cycle. Part I: Method description, validation, and demonstration for the August 2002 flooding in Central Europe. *J. Hydrometeorol.* **5**, 656-678.
79. Bonasoni, P., P. Cristofanelli, F. Calzolari, U. Bonafé, F. Evangelisti, A. Stohl, S. Zauli Sajani, R. van Dingenen, T. Colombo, and Y. Balkanski (2004): Aerosol-ozone correlations during dust transport episodes. *Atmos. Chem. Phys.* **4**, 1201-1215.
78. Stohl, A., O. R. Cooper, R. Damoah, F. C. Fehsenfeld, C. Forster, E.-Y. Hsie, G. Hübler, D. D. Parrish, and M. Trainer (2004): Forecasting for a Lagrangian aircraft campaign. *Atmos. Chem. Phys.* **4**, 1113-1124.
77. Stohl, A., O. Cooper, and P. James (2004): A cautionary note on the use of meteorological analysis data for quantifying atmospheric mixing. *J. Atmos. Sci.* **61**, 1446-1453.

76. Jost, H.-J., K. Drdla, **A. Stohl**, L. Pfister, M. Loewenstein, J. P. Lopez, P. K. Hudson, D. M. Murphy, D. J. Cziczo, M. Fromm, T. P. Bui, J. Dean-Day, C. Gerbig, M. J. Mahoney, E. C. Richard, N. Spichtinger, J. V. Pittman, E. M. Weinstock, J. C. Wilson, and I. Xueref (2004): In-situ observations of midlatitude forest fire plumes deep in the stratosphere. *Geophys. Res. Lett.* **31**, L11101, doi:10.1029/2003GL019253.
75. Forster, C., O. Cooper, **A. Stohl**, S. Eckhardt, P. James, E. Dunlea, D. K. Nicks Jr., J. S. Holloway, G. Hübner, D. D. Parrish, T. B. Ryerson, and M. Trainer (2004): Lagrangian transport model forecasts and a transport climatology for the Intercontinental Transport and Chemical Transformation 2002 (ITCT 2k2) measurement campaign. *J. Geophys. Res.* **109**, D07S92, doi:10.1029/2003JD003589.
74. Henne, S., M. Furger, S. Nyeki, M. Steinbacher, B. Neininger, S. F. J. deWekker, J. Dommen, N. Spichtinger, **A. Stohl**, and A. S. H. Prévôt (2004): Quantification of topographic venting of boundary layer air to the free troposphere. *Atmos. Chem. Phys.* **4**, 497-509.
73. Eckhardt, S., **A. Stohl**, H. Wernli, P. James, C. Forster, and N. Spichtinger (2004): A 15-year climatology of warm conveyor belts. *J. Climate* **17**, 218-237.
72. Virkkula, A., K. Teinilä, R. Hillamo, and **A. Stohl** (2003): A decade of trace gas measurements using DOAS in Finnish Lapland. *Boreal Env. Res.* **8**, 351-363.
71. Ansmann, A., J. Bösenberg, A. Chaikovsky, A. Comerón, S. Eckhardt, R. Eixmann, V. Freudenthaler, P. Ginoux, L. Komguem, H. Linné, M. Á. L. Márquez, V. Matthias, I. Mattis, V. Mitev, D. Müller, S. Music, S. Nickovic, J. Pelon, L. Sauvage, P. Sobolewsky, M. K. Srivastava, **A. Stohl**, O. Torres, G. Vaughan, U. Wandinger, and M. Wiegner (2003): Long-range transport of Saharan dust to northern Europe: The 11-16 October 2001 outbreak observed with EARLINET. *J. Geophys. Res.* **108**, 4782, doi:10.1029/2003JD003757.
70. **Stohl, A.**, H. Wernli, M. Bourqui, C. Forster, P. James, M. A. Liniger, P. Seibert, and M. Sprenger (2003): A new perspective of stratosphere-troposphere exchange. *Bull. Am. Met. Soc.* **84**, 1565-1573.
69. Haag, W., B. Kärcher, J. Ström, A. Minikin, U. Lohmann, J. Ovarlez, and **A. Stohl** (2003): Freezing thresholds and cirrus cloud formation mechanisms inferred from in situ measurements of relative humidity. *Atmos. Chem. Phys.* **3**, 1791-1806.
68. Eckhardt, S., **A. Stohl**, S. Beirle, N. Spichtinger, P. James, C. Forster, C. Junker, T. Wagner, U. Platt, and S. G. Jennings (2003): The North Atlantic Oscillation controls air pollution transport to the Arctic. *Atmos. Chem. Phys.* **3**, 1769-1778.
67. Stratmann, F., H. Siebert, G. Spindler, B. Wehner, D. Althausen, J. Heintzenberg, O. Hellmuth, R. Rinke, U. Schmieder, C. Seidel, T. Tuch, U. Uhrner, A. Wiedensohler, U. Wandinger, M. Wendisch, D. Schnell, and **A. Stohl** (2003): New-particle formation events in a continental boundary layer: first results from the SATURN experiment. *Atmos. Chem. Phys.* **3**, 1445-1459.
66. **Stohl, A.**, H. Huntrieser, A. Richter, S. Beirle, O. R. Cooper, S. Eckhardt, C. Forster, P. James, N. Spichtinger, M. Wenig, T. Wagner, J. P. Burrows, and U. Platt (2003): Rapid intercontinental air pollution transport associated with a meteorological bomb. *Atmos. Chem. Phys.* **3**, 969-985.
65. Fiebig, M., **A. Stohl**, M. Wendisch, S. Eckhardt, and A. Petzold (2003): Dependence of solar radiative forcing of forest fire aerosol on ageing and state of mixture. *Atmos. Chem. Phys.* **3**, 881-891.
64. **Stohl, A.**, C. Forster, S. Eckhardt, N. Spichtinger, H. Huntrieser, J. Heland, H. Schlager, S. Wilhelm, F. Arnold, and O. Cooper (2003): A backward modeling study of intercontinental pollution transport using aircraft measurements. *J. Geophys. Res.* **108**, 4370, doi:10.1029/2002JD002862.
63. Heintzenberg, J., T. Tuch, B. Wehner, A. Wiedensohler, H. Wex, A. Ansmann, I. Mattis, D. Müller, M. Wendisch, S. Eckhardt, and **A. Stohl** (2003): Arctic haze over Central Europe. *Tellus* **55B**, 796-807.
62. Zanis, P., T. Trickl, **A. Stohl**, H. Wernli, O. Cooper, C. Zerefos, H. Gäggeler, C. Schnabel, L. Tobler, P. W. Kubik, A. Priller, H. E. Scheel, H. J. Kanter, P. Cristofanelli, C. Forster, P. James, E. Ge-

- rasopoulos, A. Delcloo, A. Papayannis, and H. Claude (2003): Forecast, observation and modelling of a deep stratospheric intrusion event over Europe. *Atmos. Chem. Phys.* **3**, 763-777.
61. Müller, D., I. Mattis, U. Wandinger, A. Ansmann, D. Althausen, O. Dubovik, S. Eckhardt, and A. Stohl (2003): Saharan dust over a Central European EARLINET-AERONET site: Combined observations with Raman lidar and Sun photometer. *J. Geophys. Res.* **108**, 4345, doi:10.1029/2002JD002918.
60. Fischer, H., R. Kormann, T. Klüpfel, Ch. Gurk, R. Königstedt, U. Parchatka, J. Mühle, T. S. Rhee, C. A. M. Brenninkmeijer, P. Bonasoni, and A. Stohl (2003): Ozone production and trace gas correlations during the June 2000 MINATROC intensive measurement campaign at Mt. Cimone. *Atmos. Chem. Phys.* **3**, 725-738.
59. Wenig, M., N. Spichtinger, A. Stohl, G. Held, S. Beirle, T. Wagner, B. Jähne, and U. Platt (2003): Intercontinental transport of a power plant plume of nitrogen oxides. *Atmos. Chem. Phys.* **3**, 387-393.
58. Trickl, T., O. Cooper, H. Eisele, P. James, R. Mücke, and A. Stohl (2003): Intercontinental transport and its influence on the ozone concentrations over central Europe: Three case studies. *J. Geophys. Res.* **108**, 8530, doi:10.1029/2002JD002735.
57. Roelofs, G. J., A. S. Kentarchos, T. Trickl, A. Stohl, W. J. Collins, R. A. Crowther, D. Hauglustaine, A. Klonecki, K. S. Law, M. G. Lawrence, R. von Kuhlmann, and M. van Weele (2003): Intercomparison of tropospheric ozone models: ozone transport in a complex tropopause folding event. *J. Geophys. Res.* **108**, 8529, doi:10.1029/2003JD003462.
56. Stohl, A., P. Bonasoni, P. Cristofanelli, W. Collins, J. Feichter, A. Frank, C. Forster, E. Gerasopoulos, H. Gäggeler, P. James, T. Kentarchos, H. Kromp-Kolb, B. Krüger, C. Land, J. Meloen, A. Papayannis, A. Priller, P. Seibert, M. Sprenger, G. J. Roelofs, H. E. Scheel, C. Schnabel, P. Siegmund, L. Tobler, T. Trickl, H. Wernli, V. Wirth, P. Zanis, and C. Zerefos (2003): Stratosphere-troposphere exchange: A review, and what we have learned from STACCATO. *J. Geophys. Res.* **108**, 8516, doi:10.1029/2002JD002490.
55. Meloen, J., P. Siegmund, P. van Velthoven, H. Kelder, M. Sprenger, H. Wernli, A. Kentarchos, G. Roelofs, J. Feichter, C. Land, C. Forster, P. James, A. Stohl, W. Collins, and P. Cristofanelli (2003): Stratosphere troposphere exchange: A model and method intercomparison. *J. Geophys. Res.* **108**, 8526, doi:10.1029/2002JD002274.
54. Forster, C., A. Stohl, P. James, and V. Thouret (2003): The residence times of aircraft emissions in the stratosphere using a mean emissions inventory and emissions along actual flight tracks. *J. Geophys. Res.* **108**, 8524, doi:10.1029/2002JD002515.
53. Cristofanelli, P., P. Bonasoni, W. Collins, J. Feichter, C. Forster, P. James, A. Kentarchos, P. W. Kubik, C. Land, J. Meloen, G. J. Roelofs, P. Siegmund, M. Sprenger, C. Schnabel, A. Stohl, L. Tobler, L. Tositti, T. Trickl, and P. Zanis (2003): Stratosphere-to-troposphere transport: A model and method evaluation. *J. Geophys. Res.* **108**, 8525, doi:10.1029/2002JD002600.
52. James, P., A. Stohl, C. Forster, S. Eckhardt, P. Seibert, and A. Frank (2003): A 15-year climatology of stratosphere-troposphere exchange with a Lagrangian particle dispersion model: 2. Mean climate and seasonal variability. *J. Geophys. Res.* **108**, 8522, doi:10.1029/2002JD002639.
51. James, P., A. Stohl, C. Forster, S. Eckhardt, P. Seibert, and A. Frank (2003): A 15-year climatology of stratosphere-troposphere exchange with a Lagrangian particle dispersion model: 1. Methodology and validation. *J. Geophys. Res.* **108**, 8519, doi:10.1029/2002JD002637.
50. Zanis, P., E. Gerasopoulos, A. Priller, C. Schnabel, A. Stohl, C.S. Zerefos, H. Gäggeler, L. Tobler, P. Kubik, H. J. Kanter, H. E. Scheel, J. Luterbacher, and M. Berger (2003): An estimate of the impact of stratosphere-to-troposphere transport (STT) on the lower free tropospheric ozone over the Alps using ^{10}Be and ^7Be measurements. *J. Geophys. Res.* **108**, 8520, doi:10.1029/2002JD002604.
49. Lawrence, M. G., P. J. Rasch, R. von Kuhlmann, J. Williams, H. Fischer, M. de Reus, J. Lelieveld, P. J. Crutzen, M. Schultz, P. Stier, H. Huntrieser, J. Heland, A. Stohl, C. Forster, H. Elbern, H. Jakobs, and R. R. Dickerson (2003): Global chemical weather forecasts for field campaign planning:

- predictions and observations of large-scale features during MINOS, CONTRACE and INDOEX.
Atmos. Chem. Phys. **3**, 267-289.
48. Stohl, A., S. Eckhardt, C. Forster, P. James, and N. Spichtinger (2002): On the pathways and time-scales of intercontinental air pollution transport. *J. Geophys. Res.* **107**, 4684, doi:10.1029/2001JD001396.
47. Wandinger, U., D. Müller, C. Böckmann, D. Althausen, V. Matthias, J. Bösenberg, V. Weiß, M. Fiebig, M. Wendisch, A. Stohl, and A. Ansmann (2002): Optical and microphysical characterization of biomass-burning and industrial-pollution aerosols from multiwavelength lidar and aircraft measurements. *J. Geophys. Res.* **107**, 8125, doi:10.1029/2000JD000202.
46. Stohl, A., S. Eckhardt, C. Forster, P. James, N. Spichtinger, and P. Seibert (2002): A replacement for simple back trajectory calculations in the interpretation of atmospheric trace substance measurements. *Atmos. Environ.* **36**, 4635-4648.
45. Eixmann, R., C. Böckmann, B. Fay, V. Matthias, I. Mattis, D. Müller, S. Kreipl, J. Schneider, and A. Stohl (2002): Tropospheric aerosol layers after a cold front passage in January 2000 as observed at several stations of the German lidar network. *Atmos. Research* **63**, 39-58.
44. Stohl, A., M. Trainer, T. Ryerson, J. Holloway, and D. Parrish (2002): Export of NO_y from the North American boundary layer during NARE 96 and NARE 97. *J. Geophys. Res.* **107**, 4131, doi:10.1029/2001JD000519.
43. Cooper, O. R., J. L. Moody, D. D. Parrish, M. Trainer, J. S. Holloway, G. Hübler, F. C. Fehsenfeld, and A. Stohl (2002): Trace gas composition of mid-latitude cyclones over the western North Atlantic Ocean: A seasonal comparison of O₃ and CO. *J. Geophys. Res.* **107**, 4056, doi:10.1029/2001JD000902.
42. Frost, G. J., A. Fried, Y.-N. Lee, B. Wert, B. Henry, J. R. Drummond, M. J. Evans, F. C. Fehsenfeld, P. D. Goldan, J. S. Holloway, G. Hübler, R. Jakoubek, B. T. Jobson, K. Knapp, W. C. Kuster, J. Roberts, J. Rudolph, T. B. Ryerson, A. Stohl, C. Stroud, D. T. Sueper, M. Trainer and J. Williams (2002): Comparisons of box model calculations and measurements of formaldehyde from the 1997 North Atlantic Regional Experiment. *J. Geophys. Res.* **107**, 4060, doi:10.1029/2001JD000896.
41. Schwere, S., A. Stohl, and M. W. Rotach (2002): Practical considerations to speed up Lagrangian stochastic particle models. *Comp. Geosc.* **28**, 143-154.
40. Gerasopoulos, E., P. Zanis, A. Stohl, C.S. Zerefos, C. Papastefanou, W. Ringer, L. Tobler, S. Hubener, H. W. Gäggeler, H. J. Kanter, L. Tositti, and S. Sandrini (2001): A climatology of ⁷Be at four high-altitude stations at the Alps and the Northern Apennines. *Atmos. Environ.* **35**, 6347-6360.
39. Spichtinger, N., M. Wenig, P. James, T. Wagner, U. Platt, and A. Stohl (2001): Satellite detection of a continental-scale plume of nitrogen oxides from boreal forest fires. *Geophys. Res. Lett.* **28**, 4579-4582.
38. Stohl, A., P. James, C. Forster, N. Spichtinger, A. Marenco, V. Thouret, and H. G. J. Smit (2001): An extension of Measurements of Ozone and Water Vapor by Airbus In-service Aircraft (MOZAIC) ozone climatologies using trajectory statistics. *J. Geophys. Res.* **106**, 27,757-27,768.
37. Forster, C., U. Wandinger, G. Wotawa, P. James, I. Mattis, D. Althausen, P. Simmonds, S. O'Doherty, C. Kleefeld, S. G. Jennings, J. Schneider, T. Trickl, S. Kreipl, H. Jäger, and A. Stohl (2001): Transport of boreal forest fire emissions from Canada to Europe. *J. Geophys. Res.* **106**, 22,887-22,906.
36. Stohl, A., L. Haimberger, M. P. Scheele, and H. Wernli (2001): An intercomparison of results from three trajectory models. *Meteorol. Appl.* **8**, 127-135.
35. Cooper, O. R., J. L. Moody, and A. Stohl (2001): The influence of synoptic scale transport mechanisms on trace gas relationships above the western North Atlantic Ocean. *IGACtivities Newsletter* **24**, 7-9.
34. Stohl, A., and T. Trickl (2001): Experimental evidence for trans-Atlantic transport of air pollution. *IGACtivities Newsletter* **24**, 10-12.

33. Stohl, A. (2001): A one-year Lagrangian "climatology" of airstreams in the northern hemisphere troposphere and lowermost stratosphere. *J. Geophys. Res.* **106**, 7263-7279.
32. Fabian, P., M. Winterhalter, B. Rappenglück, H. Reitmayer, A. Stohl, P. Koepke, H. Schlager, H. Berresheim, T. Foken, B. Wichura, K. H. Häberle, R. Matyssek, and T. Kartschall (2001): The BAYSOFI campaign - Measurements carried out during the total solar eclipse of August 11, 1999. *Meteorol. Zeitschrift* **10**, 165-170.
31. Fabian, P., B. Rappenglück, A. Stohl, H. Werner, M. Winterhalter, H. Schlager, P. Stock, H. Berresheim, U. Kaminski, P. Koepke, J. Reuder, and W. Birmili (2001): Boundary layer photochemistry during a total solar eclipse. *Meteorol. Zeitschrift* **10**, 187-192.
30. Kreipl, S., R. Mücke, H. Jäger, T. Trickl, and A. Stohl (2001): Spectacular cases of vertical and long-range ozone and aerosol transport. *Advances in Laser Remote Sensing*, Selected papers presented at the 20th International Laser Radar Conference, Vichy (France), 10-14 July, 2000, Alain Dabas, Claude Loth and Jacques Pelon, Editors, Editions de l' Ecole Polytechnique (Palaiseau, France, 2001), ISBN 2-7302-0798-8, 455-458 (reviewed volume).
29. Bonasoni, P., A. Stohl, P. Cristofanelli, F. Calzolari, T. Colombo, and F. Evangelisti (2000): Background ozone variations at Mt. Cimone station. *Atmos. Environ.* **34**, 5183-5189.
28. Stohl, A., N. Spichtinger-Rakowsky, P. Bonasoni, H. Feldmann, M. Memmesheimer, H. E. Scheel, T. Trickl, S. H. Hübener, W. Ringer, and M. Mandl (2000): The influence of stratospheric intrusions on alpine ozone concentrations. *Atmos. Environ.* **34**, 1323-1354.
27. Bonasoni, P., F. Evangelisti, U. Bonafe', F. Ravagnani, F. Calzolari, A. Stohl, L. Tositti, O. Tuberini, and T. Colombo (2000): Stratospheric ozone intrusion episodes recorded at Mt. Cimone during the VOTALP project: case studies. *Atmos. Environ.* **34**, 1355-1365.
26. Wotawa, G., H. Kröger, and A. Stohl (2000): Horizontal ozone transports towards the Alps - results from trajectory analyses and photochemical model studies. *Atmos. Environ.* **34**, 1367-1377.
25. Stohl, A., and T. Trickl (1999): A textbook example of long-range transport: Simultaneous observation of ozone maxima of stratospheric and North American origin in the free troposphere over Europe. *J. Geophys. Res.* **104**, 30445-30462.
24. Xia, Y., P. Fabian, A. Stohl, and M. Winterhalter (1999): Forest climatology: estimation of missing values for Bavaria, Germany. *Agric. For. Meteorol.* **96**, 131-144.
23. Xia, Y., P. Fabian, A. Stohl, and M. Winterhalter (1999): Forest climatology: Reconstruction of mean climatological data for Bavaria, Germany. *Agric. For. Meteorol.* **96**, 117-129.
22. Stohl, A., and D. J. Thomson (1999): A density correction for Lagrangian particle dispersion models. *Bound.-Layer Met.* **90**, 155-167.
21. Bonasoni, P., F. Evangelisti, U. Bonafe', H. Feldmann, M. Memmesheimer, A. Stohl, L. Tositti, H. Kromp-Kolb, and T. Colombo (1999): Stratosphere-troposphere exchanges: case studies recorded at Mt. Cimone during the VOTALP project. *Phys. Chem. Earth* **24C**, 443-446.
20. Stohl, A., and N. E. Koffi. (1998): Evaluation of trajectories calculated from ECMWF data against constant volume balloon flights during ETEX. *Atmos. Environ.* **32**, 4151-4156.
19. Stohl, A., M. Hittenberger, and G. Wotawa (1998): Validation of the Lagrangian particle dispersion model FLEXPART against large scale tracer experiments. *Atmos. Environ.* **32**, 4245-4264.
18. Stohl, A., and P. Seibert (1998): Accuracy of trajectories as determined from the conservation of meteorological tracers. *Q. J. Roy. Met. Soc.* **124**, 1465-1484.
17. Wotawa, G., A. Stohl, and B. Neininger (1998): The urban plume of Vienna: comparison between aircraft measurements and photochemical model results. *Atmos. Environ.* **32**, 2479-2489.
16. Stohl, A. (1998): Computation, accuracy and applications of trajectories - a review and bibliography. *Atmos. Environ.* **32**, 947-966.

15. Virkkula, A., R. E. Hillamo, V.-M. Kerminen, and **A. Stohl** (1998): The influence of Kola Peninsula, continental European and marine sources on the number concentrations and scattering coefficients of the atmospheric aerosol in Finnish Lapland. *Boreal Env. Res.* **2**, 317-336.
14. Tausz, M., D. Grill, E. Stabentheiner, H. Kromp-Kolb, **A. Stohl**, E. Führer, and F. Mitterböck (1997): Comparative assessment of forest condition by visual criteria and physiological stress-indicators as affected by ambient air pollution and meteorology. *Acta Biologica* **19**, Zagreb, 19pp.
13. **Stohl, A.**, K. Baumann, G. Wotawa, M. Langer, B. Neininger, M. Piringer, and H. Formayer (1997): Diagnostic downscaling of large scale wind fields to compute local scale trajectories. *J. Appl. Meteor.* **36**, 931-942.
12. Baumann, K., and **A. Stohl** (1997): Validation of a long-range trajectory model using gas balloon tracks from the Gordon Bennett Cup 95. *J. Appl. Meteor.* **36**, 711-720.
11. **Stohl, A.**, E. Williams, G. Wotawa, and H. Kromp-Kolb (1996): A European inventory of soil nitric oxide emissions and the effect of these emissions on the photochemical formation of ozone in Europe. *Atmos. Environ.* **30**, 3741-3755.
10. Scheifinger, H., **A. Stohl**, H. Kromp-Kolb, and W. Spangl (1996): A statistical method for predicting daily maximum ozone concentrations. *Gefahrstoffe - Reinhaltung der Luft* **56**, 133-137.
9. Wotawa, G., **A. Stohl**, and H. Kromp-Kolb (1996): Estimating the uncertainty of a Lagrangian photochemical air quality simulation model caused by inexact meteorological input data. *Rel. Eng. Sys. Saf.* **57**, 31-40.
8. Wotawa, G., **A. Stohl**, and H. Kromp-Kolb (1996): Parameterization of the planetary boundary layer over Europe - a data comparison between the observation based OML preprocessor and ECMWF model data. *Contr. Atmos. Phys.* **69**, 273-284.
7. **Stohl, A.** (1996): Trajectory statistics - a new method to establish source-receptor relationships of air pollutants and its application to the transport of particulate sulfate in Europe. *Atmos. Environ.* **30**, 579-587.
6. Virkkula, A., M. Mäkinen, R. Hillamo, and **A. Stohl** (1995): Atmospheric aerosol in the Finnish arctic: particle number concentrations, chemical characteristics, and source analysis. *Water, Air & Soil Poll.* **85**, 1997-2002.
5. **Stohl, A.**, and G. Wotawa (1995): A method for computing single trajectories representing boundary layer transport. *Atmos. Environ.* **29**, 3235-3239.
4. **Stohl, A.**, G. Wotawa, P. Seibert, and H. Kromp-Kolb (1995): Interpolation errors in wind fields as a function of spatial and temporal resolution and their impact on different types of kinematic trajectories. *J. Appl. Meteor.* **34**, 2149-2165.
3. **Stohl, A.**, and H. Scheifinger (1994): A weather pattern classification by trajectory clustering. *Meteorol. Zeitschrift N.F.* **6**, 333-336.
2. Grill, D., M. Tausz, E. Bermadinger-Stabentheiner, M. Edl, M. Gailhofer, G. Halbwachs, W. Havranek, H. Kromp-Kolb, M. Müller, C. Nemetz, L. Puchinger, W. Ruppert, U. Scardelli, **A. Stohl**, K. Wagner, G. Wieser, R. Wimmer, and G. Zellnig (1994): Physiological and biochemical bioindication and its application to the FIW II project "Schöneben". *Forstliche Schriftenreihe, Univ. für Bodenkultur* **7**, 123-146.
1. **Stohl, A.**, and H. Kromp-Kolb (1994): Origin of ozone in Vienna and surroundings, Austria. *Atmos. Environ.* **28**, 1255-1266.

Books

- **Stohl, A.** (editor) (2004): Intercontinental Transport of Air Pollutants. Springer-Verlag, Heidelberg, ISBN: 3-540-20563-2, 325p.
- **Stohl, A.**, and A. Riha (1994): Ozon - Segen oder Fluch. Verlag Carl Ueberreuter, Wien, 238 p.

Book chapters, assessments, major newsletter contributions

- Quinn, P. K., T.S. Bates, E. Baum, T. Bond, J.F. Burkhart, A.M. Fiore, M. Flanner, T.J. Garrett, D. Koch, J. McConnell, D. Shindell, and **A. Stohl** (2008): **The impact of short-lived pollutants on Arctic climate. AMAP Technical Report No. 1 (2008)**, Arctic Monitoring and Assessment Programme (AMAP), Oslo, Norway.
- Cooper, O., **A. Stohl** (lead authors), R. Doherty, and P. Hess (2007): **Conceptual overview**. In: **Hemispheric Transport of Air Pollution 2007** (pages 8-28). United Nations Economic Commission for Europe, Air Pollution Studies No. 16, United Nations, New York and Geneva, 146 p.
- Stohl, **A.** (2006): **The role of biomass burning for aerosols and air pollution in the Arctic**. *iLEAPS Newsletter* **3**, 18-19.
- Stohl, **A.**, and K. Law (2006): **POLARCAT: Polar Study using Aircraft, Remote Sensing, Surface Measurements and Models, of Climate, Chemistry, Aerosols, and Transport**. *iLEAPS Newsletter* **3**, 6.
- Hole, L., J. Christensen, M. Forsius, M. Nyman, **A. Stohl** and S. Wilson (2006): **Sources of Acidifying Pollutants and Arctic Haze Precursors**. p. 2-10 in: **AMAP Assessment 2006: Acidifying Pollutants, Arctic Haze, and Acidification in the Arctic**, Arctic Monitoring and Assessment Programme, Oslo, ISBN: 82-7971-046-9.
- Stohl, **A.**, and K. Tørseth (2006): **Atmospheric Pollution into the Arctic Region**. *Nordic Space* **13** (**3**), 24-26.
- Stohl, **A.**, and K. Law (2006): **Polar Study using Aircraft, Remote Sensing, Surface Measurements and Models, of Climate, Chemistry, Aerosols, and Transport (POLARCAT) – An International Polar Year (IPY) Activity jointly endorsed by IGAC, SPARC and iLEAPS**. *IGACtivities Newsletter* **33**, 16-32.
- Jäger, H., P. James, **A. Stohl**, and T. Trickl (2006): **Long-Range Transport of Free-Tropospheric Aerosol: A Nine-year Climatology**. In: C. Nagasawa, N. Sugimoto (editors): Reviewed and Revised Papers Presented at the 23rd International Laser Radar Conference, Nara (Japan), July 24 to 28, 2006. **The Steering Committee of the 23rd ILRC** (Tokyo Metropolitan University, Japan, 2006), ISBN 4-9902916-0-3, pp. 795-796.
- Stohl, **A.**, and S. Eckhardt (2004): **Intercontinental Transport of Air Pollutants – An Introduction**. In: A. Stohl (editor): **Intercontinental Transport of Air Pollutants**. Springer-Verlag, Heidelberg, ISBN: 3-540-20563-2, 325p.
- Stohl, **A.**, N. Spichtinger, S. Beirle, M. Wenig, T. Wagner, and U. Platt (2004): **Determination of NO_x sources by combination of satellite images with transport modelling**. In: P. Borrell, P. M. Borrell, J. P. Burrows, U. Platt (editors): **Sounding the troposphere from space: a new era for atmospheric chemistry**. Springer-Verlag, Berlin, Germany, 271-280.
- Penkett, S. A., et al. (2003): **Atmospheric Photooxidants**. In: G. P. Brasseur, R. G. Prinn, and A. Pszenny (editors): **Atmospheric Chemistry in a Changing World**. Springer-Verlag, Berlin, Germany, 73-124.
- Volz-Thomas, A., M. Beekmann, D. Derwent, K. Law, A. Lindskog, A. Prévôt, M. Roemer, M. Schultz, U. Schurath, S. Solberg, and **A. Stohl** (2003): **Tropospheric Ozone and its Control**. In: P. Midgley, P. Builtjes, D. Fowler, R. Harrison, N. Hewitt, N. Moussiopoulos, K. Noone, K. Tørseth, and A. Volz-Thomas (editors): **Towards Cleaner Air for Europe – Science, Tools and Applications**. Margraf Publishers, Verlagsgesellschaft mbH, Weikersheim, Germany, 73-122.
- Stohl, **A.** (2002): **Computation, accuracy and applications of trajectories – A review and bibliography**. In: J. Austin, P. Brimblecombe and W. Sturges (editors): **Air Pollution Science for the 21st Century**. Elsevier Science Ltd., Amsterdam, The Netherlands, 615-654.
- Stohl, **A.** and the STACCATO community (2002): **Results from STACCATO**. In: P. M. Midgley and M. Reuther (editors): **Proceedings from the EUROTRAC-2 Symposium 2002**. Margraf Verlag, Weikersheim, Germany, 105-109.

- Stohl, A. (2002): [Long-range Transport and Stratosphere/Troposphere Exchange: Learning from Satellite Data](#). In: P. M. Midgley and M. Reuther (editors): Proceedings from the EUROTRAC-2 Symposium 2002. [Margraf Verlag](#), Weikersheim, Germany, 127-132.
- Stohl, A., and T. Trickl (2001): [Long-range transport of ozone from the North American boundary layer to Europe: Observations and model results](#). In: S.-E. Gryning and F. A. Schiermeier (editors): Air Pollution Modelling and its Application XIV, [Kluwer Academic/Plenum Publishers](#), New York, 257-266.
- Stohl, A. (2000): [The effect of unresolved mesoscale wind velocity fluctuations on dispersion model results](#). In: S.-E. Gryning and E. Batchvarova (editors): Air Pollution Modelling and its Application XIII. [Kluwer Academic/Plenum Press](#), New York, 311-320.
- Stohl, A. (1999): [Some experiences from using tracer data for dispersion model validation](#). In: Borrell, P.M. and Borrell, P. (editors): Proceedings of EUROTRAC Symposium 98, Volume 2. [WITpress](#), Southampton, 489-492.
- Stohl, A., and P. Seibert (1997): [On the accuracy of different types of trajectories](#). In: Power, H., T. Tirabassi, C.A. Brebbia (editors): Air Pollution V. [Computational Mechanics Publications](#), Southampton, Boston, GB, 167-176.
- Stohl, A., and P. Seibert (1997): [Comparison of different types of trajectories using meteorological tracers](#). In: Nodop, K. (editor): ETEX Symposium on Long-Range Atmospheric Transport, Model Verification and Emergency Response, [European Commission EUR 17346](#), 219-222.
- Stohl, A., and G. Wotawa (1997): [Validation of the Lagrangian particle model FLEXPART using ETEX data](#). In: Nodop, K. (editor): ETEX Symposium on Long-Range Atmospheric Transport, Model Verification and Emergency Response, [European Commission EUR 17346](#), 167-170.
- Kromp-Kolb, H., and A. Stohl (1996): [Klimawirkungen](#). In: Österreichische Akademie der Wissenschaften: Flüchtige Kohlenwasserstoffe in der Atmosphäre - Entstehung, Verhalten und Wirkungen. [Verlag der Österreichischen Akademie der Wissenschaften](#), Wien 1996.
- Virkkula, A., M. Mäkinen, R.E. Hillamo, V.-M. Kerminen, and A. Stohl (1996): [Physical properties and sources of atmospheric aerosol in the Finnish Arctic](#). In: Kulmala, M. and P.E. Wagner (editors): Nucleation and Atmospheric Aerosols. Proc. 14th International Conference on Nucleation and Atmospheric Aerosols, Helsinki, 26-30 August 1996, [Elsevier Press](#), 593-596.
- Stohl, A., and H. Kromp-Kolb (1994): [Analyse der Ozonsituation im Großraum Wien](#). [Österreichische Beiträge zu Meteorologie und Geophysik](#). Heft 8. 135 p.
- Stohl, A., and H. Kromp-Kolb (1994): [Frequency of ozone formation in the plume of Vienna](#). In: Baldasano, J.M., C.A. Brebbia, H. Power, and P. Zannetti (editors): Air Pollution 2, Volume 2 - Pollution Control and Monitoring. [Computational Mechanics Publications](#), Southampton, Boston, GB, 449-456.

Habilitation, PhD and diploma thesis

- Stohl, A. (2000): [Modellierung von Transportprozessen in der Atmosphäre](#). Habilitationsschrift an der Universität für Bodenkultur in Wien.
- Stohl, A. (1996): [On the Use of Trajectories for Establishing Source-Receptor Relationships of Air Pollutants](#). Doctor thesis at the University of Vienna.
- Stohl, A. (1991): [Grenzüberschreitender Transport von Luftverunreinigungen am Beispiel Österreich - Tschechoslowakei](#). Diploma thesis at the University of Vienna.