

Markus Furger's Publications

References are listed by date in descending order (newest first).

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Peer-reviewed articles

- Furger, M., M. C. Minguillón, V. Yadav, J. G. Slowik, C. Hüglin, R. Fröhlich, K. Petterson, U. Baltensperger, and A. S. H. Prévôt, 2017: Elemental composition of ambient aerosols measured with high temporal resolution using an online XRF spectrometer. *Atmos. Meas. Tech.*, **10**, 2061-2076, doi:10.5194/amt-10-2061-2017.
- Bannan, T. J., A. M. Booth, A. Bacak, J. B. A. Muller, K. E. Leather, M. Le Breton, B. Jones, D. Young, H. Coe, J. Allan, S. Visser, J. G. Slowik, M. Furger, A. S. H. Prévôt, J. Lee, R. E. Dunmore, J. R. Hopkins, J. F. Hamilton, A. C. Lewis, L. K. Whalley, T. Sharp, D. Stone, D. E. Heard, Z. L. Fleming, R. Leigh, D. E. Shallcross, and C. J. Percival, 2015: The first UK measurements of nitryl chloride using a chemical ionization mass spectrometer in central London in the summer of 2012, and an investigation of the role of Cl atom oxidation. *Journal of Geophysical Research: Atmospheres*, **120**, 5638-5657, doi:10.1002/2014JD022629.
- Berninger, F., S. Susiluoto, G. Damiano, M. Bahn, G. Wohlfahrt, C. Campbell, M. Anderson, M. Sutton, T. Christensen, J. Garcia-Pausas, C. Gimeno, M. J. Sanz, S. Dore, N. Rogiers, M. Furger, W. Eugster, M. Balzarolo, M. T. Sebastià, J. Tenhunen, T. Staszewski, and A. Cernusca, 2015: Management and site effects on carbon balances of European mountain pastures and meadows. *Boreal Environment Research*, **20**, 748-760.
- Visser, S., J. G. Slowik, M. Furger, P. Zotter, N. Bukowiecki, F. Canonaco, U. Flechsig, K. Appel, D. C. Green, A. H. Tremper, D. E. Young, P. I. Williams, J. D. Allan, H. Coe, L. R. Williams, C. Mohr, L. Xu, N. L. Ng, E. Nemitz, J. F. Barlow, C. H. Halios, Z. L. Fleming, U. Baltensperger, and A. S. H. Prévôt, 2015: Advanced source apportionment of size-resolved trace elements at multiple sites in London during winter. *Atmos. Chem. Phys.*, **15**, 11291-11309, doi:10.5194/acp-15-11291-2015.
- Visser, S., J. G. Slowik, M. Furger, P. Zotter, N. Bukowiecki, R. Dressler, U. Flechsig, K. Appel, D. C. Green, A. H. Tremper, D. E. Young, P. I. Williams, J. D. Allan, S. C. Herndon, L. R. Williams, C. Mohr, L. Xu, N. L. Ng, A. Detournay, J. F. Barlow, C. H. Halios, Z. L. Fleming, U. Baltensperger, and A. S. H. Prévôt, 2015: Kerb and urban increment of highly time-resolved trace elements in PM₁₀, PM_{2.5} and PM_{1.0} winter aerosol in London during ClearfLo 2012. *Atmos. Chem. Phys.*, **15**, 2367-2386, doi:10.5194/acp-15-2367-2015.
- Bohnenstengel, S. I., S. E. Belcher, A. Aiken, J. D. Allan, G. Allen, A. Bacak, T. J. Bannan, J. F. Barlow, D. C. S. Beddows, W. J. Bloss, A. M. Booth, C. Chemel, O. Coceal, C. F. Di Marco, M. K. Dubey, K. H. Faloon, Z. L. Fleming, M. Furger, J. K. Gietl, R. R. Graves, D. C. Green, C. S. B. Grimmond, C. H. Halios, J. F. Hamilton, R. M. Harrison, M. R. Heal, D. E. Heard, C. Helfter, S. C. Herndon, R. E. Holmes, J. R. Hopkins, A. M. Jones, F. J. Kelly, S. Kotthaus, B. Langford, J. D. Lee, R. J. Leigh, A. C. Lewis, R. T. Lidster, F. D. Lopez-Hilfiker, J. B. McQuaid, C. Mohr, P. S. Monks, E. Nemitz, N. L. Ng, C. J. Percival, A. S. H. Prévôt, H. M. A. Ricketts, R. Sokhi, D. Stone, J. A. Thornton, A. H. Tremper, A. C. Valach, S. Visser, L. K. Whalley, L. R. Williams, L. Xu, D. E. Young, and P. Zotter, 2015: Meteorology, Air Quality, and Health in London: The ClearfLo Project. *Bull. Amer. Meteor. Soc.*, **96**, 779-804, doi:10.1175/BAMS-D-12-00245.1.

- Michoud, V., A. Colomb, A. Borbon, K. Miet, M. Beekmann, M. Camredon, B. Aumont, S. Perrier, P. Zapf, G. Siour, W. Ait-Helal, C. Afif, A. Kukui, M. Furger, J. C. Dupont, M. Haeffelin, and J. F. Doussin, 2014: Study of the unknown HONO daytime source at a European suburban site during the MEGAPOLI summer and winter field campaigns. *Atmos. Chem. Phys.*, **14**, 2805-2822.
- Michoud, V., Kukui, A., Camredon, M., Colomb, A., Borbon, A., Miet, K., Aumont, B., Beekmann, M., Durand-Jolibois, R., Perrier, S., Zapf, P., Siour, G., Ait-Helal, W., Locoge, N., Sauvage, S., Afif, C., Gros, V., Furger, M., Ancellet, G., and Doussin, J. F.: Radical budget analysis in a suburban European site during the MEGAPOLI summer field campaign, *Atmos. Chem. Phys.*, **12**, 11951-11974, 10.5194/acp-12-11951-2012, 2012.
- Amato, F., Pandolfi, M., Moreno, T., Furger, M., Pey, J., Alastuey, A., Bukowiecki, N., Prevot, A. S. H., Baltensperger, U., and Querol, X.: Sources and variability of inhalable road dust particles in three European cities, *Atmos. Environ.*, **45**, 6777-6787, 2011.
- Amato, F., Viana, M., Richard, A., Furger, M., Prévôt, A. S. H., Nava, S., Lucarelli, F., Bukowiecki, N., Alastuey, A., Reche, C., Moreno, T., Pandolfi, M., Pey, J., and Querol, X.: Size and time-resolved roadside enrichment of atmospheric particulate pollutants, *Atmos. Chem. Phys.*, **11**, 2917-2931, 2011.
- Collaud Coen, M., Weingartner, E., Furger, M., Nyeki, S., Prévôt, A. S. H., Steinbacher, M., and Baltensperger, U.: Aerosol climatology and planetary boundary influence at the Jungfraujoch analyzed by synoptic weather types, *Atmos. Chem. Phys.*, **11**, 5931-5944, 2011.
- Moreno, T., Querol, X., Alastuey, A., Reche, C., Cusack, M., Amato, F., Pandolfi, M., Pey, J., Richard, A., Prévôt, A. S. H., Furger, M., and Gibbons, W.: Variations in time and space of trace metal aerosol concentrations in urban areas and their surroundings, *Atmos. Chem. Phys.*, **11**, 9415-9430, 2011.
- Richard, A., Gianini, M. F. D., Mohr, C., Furger, M., Bukowiecki, N., Minguillón, M. C., Lienemann, P., Flechsig, U., Appel, K., DeCarlo, P. F., Heringa, M. F., Chirico, R., Baltensperger, U., and Prévôt, A. S. H.: Source apportionment of size and time resolved trace elements and organic aerosols from an urban courtyard site in Switzerland, *Atmos. Chem. Phys.*, **11**, 8945-8963, doi:10.5194/acp-11-8945-2011, 2011.
- Trickl, T., Bärtsch-Ritter, N., Eisele, H., Furger, M., Mücke, R., Sprenger, M., and Stohl, A.: High-ozone layers in the middle and upper troposphere above Central Europe: potential import from the stratosphere along the subtropical jet stream, *Atmos. Chem. Phys.*, **11**, 9343-9366 doi:10.5194/acp-11-9343-2011, 2011.
- Richard, A., N. Bukowiecki, P. Lienemann, M. Furger, M. Fierz, M. C. Minguillón, B. Weideli, R. Figi, U. Flechsig, K. Appel, A. S. H. Prévôt, and U. Baltensperger, 2010: Quantitative sampling and analysis of trace elements in atmospheric aerosols: impactor characterization and Synchrotron-XRF mass calibration. *Atmos. Meas. Tech.*, **3**, 1473-1485.
- Bukowiecki, N., P. Lienemann, M. Hill, M. Furger, A. Richard, F. Amato, A. S. H. Prévôt, U. Baltensperger, B. Buchmann, and R. Gehrig, 2010: PM10 emission factors for non-exhaust particles generated by road traffic in an urban street canyon and along a freeway in Switzerland. *Atmos. Environ.*, **44**, 2330-2340.
- Gehrig, R., K. Zeyer, N. Bukowiecki, P. Lienemann, L. D. Poulikakos, M. Furger, and B. Buchmann, 2010: Mobile load simulators - A tool to distinguish between the emissions due to abrasion and resuspension of PM10 from road surfaces. *Atmos. Environ.*, **44**, 4937-4943.
- Bukowiecki, N., P. Lienemann, M. Hill, R. Figi, A. Richard, M. Furger, K. Rickers, G. Falkenberg, Y. J. Zhao, S. S. Cliff, A. S. H. Prevot, U. Baltensperger, B. Buchmann, and R. Gehrig, 2009: Real-World Emission Factors for Antimony and Other Brake Wear Related Trace Elements: Size-Segregated Values for Light and Heavy Duty Vehicles. *Environ. Sci. Technol.*, **43**, 8072-

- Bukowiecki, N., R. Richter, M. Furger, E. Weingartner, M. Aguirre, T. Huthwelker, P. Lienemann, R. Gehrig, and U. Baltensperger, 2009: Deposition uniformity and particle size distribution of ambient aerosol collected with a rotating drum impactor. *Aerosol Sci. Technol.*, **43**, 891-901.
- Bukowiecki, N., P. Lienemann, C. N. Zwicky, M. Furger, A. Richard, G. Falkenberg, K. Rickers, D. Grolimund, C. Borca, M. Hill, R. Gehrig, and U. Baltensperger, 2008: X-ray fluorescence spectrometry for high throughput analysis of atmospheric aerosol samples: The benefits of synchrotron X-rays. *Spectrochimica Acta Part B: Atomic Spectroscopy*, **63**, 929-938 doi:10.1016/j.sab.2008.1005.1006.
- Furger, M., 2009: Book review: Roger G. Barry's 'Mountain weather and climate' (3rd edition). *Bull. Amer. Meteor. Soc.*, **90**, 1883-1884.
- Rogiers, N., F. Conen, M. Furger, R. Stöckli, and W. Eugster, 2008: Impact of past and present land-management on the C-balance of a grassland in the Swiss Alps. *Glob. Change Biol.*, **14**, 2613-2625 doi:10.1111/j.1365-2486.2008.01680.x.
- Wohlfahrt, G., M. Anderson-Dunn, M. Bahn, M. Balzarolo, F. Berninger, C. Campbell, A. Carrara, A. Cescatti, T. Christensen, S. Dore, W. Eugster, T. Friberg, M. Furger, D. Gianelle, C. Gimeno, K. Hargreaves, P. Hari, A. Haslwanter, T. Johansson, B. Marcolla, C. Milford, Z. Nagy, E. Nemitz, N. Rogiers, M. Sanz, R. Siegwolf, S. Susiluoto, M. Sutton, Z. Tuba, F. Ugolini, R. Valentini, R. Zorer, and A. Cernusca, 2008: Biotic, Abiotic, and Management Controls on the Net Ecosystem CO₂ Exchange of European Mountain Grassland Ecosystems. *Ecosystems*, **11**, 1338-1351.
- Bayfield, N., P. Barancok, M. Furger, M. Sebastià, G. Domínguez, M. Lapka, E. Cudlinova, L. Vescovo, D. Ganielle, A. Cernusca, U. Tappeiner, and M. Drösler, 2008: Stakeholder Perceptions of the Impacts of Rural Funding Scenarios on Mountain Landscapes Across Europe. *Ecosystems*, **11**, 1368-1382.
- Ólafsson, H., M. Furger, and B. Brümmer, 2007: Editorial: The weather and climate of Iceland. *Meteorologische Zeitschrift*, **16**, 5-8.
- Furger, M., 2007: Book review: Symon et al. (Eds.), Arctic Climate Impact Assessment. *Meteorologische Zeitschrift*, **16**, 317-318 doi:10.1127/0941-2948/2007/0211.
- Drobinski, P., R. Steinacker, H. Richner, K. Baumann-Stanzer, G. Beffrey, B. Benech, H. Berger, B. Chimani, A. Dabas, M. Dorninger, B. Dürr, C. Flamant, M. Frioud, M. Furger, I. Gröhn, S. Gubser, T. Gutermann, C. Häberli, E. Häller-Scharnhorst, G. Jaubert, M. Lothon, V. Mitev, U. Pechinger, M. Piringer, M. Ratheiser, D. Ruffieux, G. Seiz, M. Spatzierer, S. Tschannett, S. Vogt, R. Werner, and G. Zängl, 2007: Föhn in the Rhine Valley during MAP: A review of its multiscale dynamics in complex valley geometry. *Quart. J. Roy. Meteor. Soc.*, **133**, 897-916 doi: 10.1002/qj.1070.
- Flamant, C., P. Drobinski, M. Furger, B. Chimani, S. Tschannett, R. Steinacker, A. Protat, H. Richner, S. Gubser, and C. Häberli, 2006: Föhn/cold-pool interactions in the Rhine valley during MAP IOP 15. *Quart. J. Roy. Meteor. Soc.*, **132**, 3035-3058.
- Grisogono, B., B. Ivančan-Picek, and M. Furger, 2006: Editorial: International Conference on Alpine Meteorology and MAP Meeting 23-27 May 2005, Zadar, Croatia. *Meteor. Z.*, **15**, 131-131 doi:10.1127/0941-2948/2006/0115.
- Richner, H., and Coauthors, 2006: Unstationary aspects of foehn in a large valley. Part I: Operational setup, scientific objectives and analysis of the cases during the Special Observing Period of the MAP subprogramme FORM. *Meteor. Atmos. Phys.*, **92**, 255-284 DOI: 10.1007/s00703-00005-00134-y.

- Ruffieux, D., and M. Furger, 2006: Editorial: The COST 720 TUC experiment. *Meteor. Z.*, **15**, 3-4 doi: 10.1127/0941-2948/2006/0103.
- Tschannett, S., and M. Furger, 2006: FORM - Ideas for future foehn research. *Bull. Amer. Meteor. Soc.*, **87**, 1091-1093.
- Rogiers, N., W. Eugster, M. Furger, and R. Siegwolf, 2005: Effect of land management on ecosystem carbon fluxes at a subalpine grassland site in the Swiss Alps. *Theoretical and Applied Climatology*, **80**, 187-203.
- Henne, S., M. Furger, and A. S. H. Prévôt, 2005: Climatology of mountain venting-induced elevated moisture layers in the lee of the Alps. *Journal of Applied Meteorology*, **44**, 620-633.
- Ordóñez, C., H. Mathis, M. Furger, S. Henne, C. Hüglin, J. Staehelin, and A. S. H. Prévôt, 2005: Changes of daily surface ozone maxima in Switzerland in all seasons from 1992 to 2002 and discussion of summer 2003. *Atmospheric Chemistry and Physics*, **5**, 1187-1203.
- Furger, M., 2005: Book review: Thomas T. Warner's 'Desert Meteorology'. *Meteorologische Zeitschrift*, 439-440 doi:10.1127/0941-2948/2005/0045.
- Cvitas, T., M. Furger, R. Girgzdiene, L. Haszpra, N. Kezele, L. Klasinc, A. Planinsek, M. Pompe, A. S. H. Prevot, H. E. Scheel, and E. Schuepbach, 2004: Spectral analysis of boundary layer ozone data from the EUROTRAC TOR network. *Journal of Geophysical Research-Atmospheres*, **109**, D02302 doi:10.1029/2003JD003727.
- Eichler, A., M. Schwikowski, M. Furger, U. Schotterer, and H. W. Gäggeler, 2004: Sources and distribution of trace species in Alpine precipitation inferred from two 60-year paleorecords. *Atmospheric Chemistry and Physics Discussions*, **4**, 71-108. SRef: 1680-7375/acpd/2004-4-71
- Frioud, M., V. Mitev, R. Matthey, H. Richner, M. Furger, and S. Gubser, 2004: Variation of the aerosol stratification over the Rhine Valley during foehn development: a backscatter lidar study. *Meteorologische Zeitschrift*, **13**, 175-181 DOI: 10.1127/0941-2948/2004/0013-0175.
- Furger, M., A. Rossa, and C. Schwierz, 2004: Editorial: International Conference on Alpine Meteorology and MAP Meeting 19-23 May 2003, Brig, Switzerland. *Meteorologische Zeitschrift*, **13**, 3 DOI: 10.1127/0941-2948/2004/0013-0003.
- Henne, S., A. S. H. Prévôt, and M. Furger, 2004a: Mountain Venting. *Bulletin of the American Meteorological Society*, **85**, 946-947.
- Henne, S., M. Furger, S. Nyeki, M. Steinbacher, B. Neininger, S. F. J. de Wekker, J. Dommen, N. Spichtinger, A. Stohl, and A. S. H. Prévôt, 2004b: Quantification of topographic venting of boundary layer air to the free troposphere. *Atmospheric Chemistry and Physics*, **4**, 497-509.
- Rossa, A., C. Schwierz, and M. Furger, 2004: Editorial: International Conference on Alpine Meteorology and MAP Meeting 19-23 May 2003, Brig, Switzerland. *Meteorologische Zeitschrift*, **13**, 67-68 DOI: 10.1127/0941-2948/2004/0013-0067.
- Schwierz, C., A. Rossa, and M. Furger, 2004: Editorial: International Conference on Alpine Meteorology and MAP Meeting 19-23 May 2003, Brig, Switzerland. *Meteorologische Zeitschrift*, **13**, 163-164 DOI: 10.1127/0941-2948/2004/0013-0163.
- Furger, M., 2003: Book review: Benestad's 'Solar Activity and Earth's Climate'. *Meteorologische Zeitschrift*, **12**, 273-274.
- Furger, M., 2003: Book review: Horst Malberg's 'Bauernregeln aus meteorologischer Sicht'. *Meteorologische Zeitschrift*, **12**, 313-314.
- Drobinski, P., C. Haeberli, E. Richard, M. Lothon, A. M. Dabas, P. H. Flamant, M. Furger, and R. Steinacker, 2003: Scale interaction processes during the MAP IOP 12 south foehn event in the Rhine Valley. *Quarterly Journal of the Royal Meteorological Society*, **129**, 729-753, doi:

- Neftel, A., C. Spirig, A. S. H. Prévôt, M. Furger, J. Stutz, B. Vogel, and J. Hjorth, 2002: Sensitivity of photooxidant production in the Milan Basin: An overview of results from a EUROTRAC-2 Limitation of Oxidant Production field experiment. *J. Geophys. Res.*, **107**, doi:10.1029/2001JD001263.
- Furger, M., 2002: AEROCHEM II - Modelling the impact of aircraft emissions on ozone and other chemical compounds in the atmosphere. *Meteor. Z.*, **11**, 139-140 (Editorial of AEROCHEM II Special Issue).
- Baumann, K., H. Maurer, G. Rau, M. Piringer, U. Pechinger, A. Prévôt, M. Furger, B. Neininger, and U. Pellegrini, 2001: The influence of south Foehn on the ozone distribution in the Alpine Rhine valley - results from the MAP field phase. *Atmos. Environ.*, **35**, 6379-6390.
- Furger, M., P. Drobinski, A. S. H. Prévôt, R. O. Weber, W. K. Graber, and B. Neininger, 2001: Comparison of horizontal and vertical scintillometer crosswinds during strong foehn with lidar and aircraft measurements. *J. Atmos. Oceanic Technol.*, **18**, 1975-1988.
- Weber, R. O. and M. Furger, 2001: Climatology of near-surface wind patterns over Switzerland. *Int. J. Climatol.*, **21**, 809-827.
- Furger, M., J. Dommen, W. K. Graber, L. Poggio, A. Prévôt, S. Emeis, G. Grell, T. Trickl, B. Gomiscek, B. Neininger, and G. Wotawa, 2000: The VOTALP Mesolcina Valley Campaign 1996 - Concept, background and some highlights. *Atmos. Environ.*, **34**, 1395-1412.
- Lugauer, M., U. Baltensperger, M. Furger, H. W. Gäggeler, D. T. Jost, S. Nyeki, and M. Schwikowski, 2000: Influences of vertical transport and scavenging on aerosol particle surface area and Radon decay product concentrations at the Jungfrauoch (3454 m asl). *J. Geophys. Res.*, **D105**, 19869-19879.
- Nyeki, S., M. Kalberer, I. Colbeck, S. de Wekker, M. Furger, H. W. Gäggeler, M. Kossmann, M. Lugauer, D. Steyn, E. Weingartner, M. Wirth, and U. Baltensperger, 2000: Convective boundary layer evolution to 4 km asl over high-alpine terrain: Airborne lidar observation in the Alps. *Geophys. Res. Lett.*, **27**, 689-692.
- Poggio, L., M. Furger, A. S. H. Prévôt, W. K. Graber, and E. L. Andreas, 2000: Scintillometer wind measurements over complex terrain. *J. Atmos. Oceanic Technol.*, **17**, 17-26.
- Prévôt, A. S. H., J. Dommen, M. Bäumle, and M. Furger, 2000: Diurnal variations of volatile organic compounds and local circulation systems in an Alpine valley. *Atmos. Environ.*, **34**, 1413-1423.
- Schmid, W., H. Schiesser, M. Furger, and M. Jenni, 2000: The origin of severe winds in a tornadic bow-echo storm over northern Switzerland. *Mon. Wea. Rev.*, **128**, 192-207.
- Graber, W. K., B. Neininger, and M. Furger, 1998: CO₂ and water vapor exchange between an Alpine ecosystem and the atmosphere. *Env. Modelling Softw.*, **13**, 353-360.
- Lugauer, M., U. Baltensperger, M. Furger, H. W. Gäggeler, D. T. Jost, M. Schwikowski, and H. Wanner, 1998: Aerosol transport to the high Alpine sites Jungfrauoch (3454 m asl) and Colle Gnifetti (4452 m asl). *Tellus*, **50B**, 76-92.
- Furger, M., C. D. Whiteman, and J. M. Wilczak, 1995: Uncertainty of boundary-layer heat budgets computed from wind profiler-RASS networks. *Mon. Wea. Rev.*, **123**, 790-799.
- Furger, M., 1992: The radiosoundings of Payerne: Aspects of the synoptic-dynamic climatology of the wind field near mountain ranges. *Theor. Appl. Climatol.*, **45**, 3-17.
- Wanner, H. and M. Furger, 1990: The Bise - climatology of a regional wind north of the Alps. *Meteor. Atmos. Phys.*, **43**, 105-115. Furger, M., 1985: Zur Problematik lufthygienischer

Conference Proceedings and other Papers

- Haslett, S. L., E. Graham, C. Wu, D. Ganguly, N. Rastogi, Atinderpal Singh, S. N. Tripathi, U. Baltensperger, D. M. Bell, D. Bhattu, M. Furger, S. Giannoukos, V. Kumar, A. S. H. Prevot, P. Rai, J. G. Slowik, Y. Tong, D. Wang, L. Wang, and C. Mohr, 2019: The composition of gas- and particle-phase oxidation products in a high-chlorine environment in New Delhi during the winter. *EAC2019 - European Aerosol Conference 2019*, Gothenburg, Sweden.
- Rai, P., M. Furger, J. G. Slowik, R.-J. Huang, J. Necki, S. N. Tripathi, U. Baltensperger, and A. S. H. Prévôt, 2019: Highly time- and size-resolved measurements of aerosol trace elements and their source apportionment in European and Asian cities. *EAC2019 - European Aerosol Conference 2019*, Gothenburg, Sweden.
- Furger, M., P. Rai, J. G. Slowik, K. Petterson, R.-J. Huang, U. Baltensperger, and A. S. H. Prévôt, 2018: Alternating PM10 and PM2.5 sampling with an inlet switching system for an online XRF spectrometer. *EXRS - European Conference on X-ray Spectrometry*, Ljubljana, Slovenia, Josef Stefan Institute, 303.
- Furger, M., P. Rai, S. N. Tripathi, M. C. Minguillón, J. G. Slowik, A. S. H. Prévôt, and U. Baltensperger, 2019: Hourly elemental concentrations in ambient aerosols in New Delhi, India, measured with an online X-ray fluorescence spectrometer. *EGU 2019 - European Geosciences Union General Assembly 2019*, Vienna, Austria, EGU2019-2090.
- Furger, M., P. Rai, F. Canonaco, J. G. Slowik, U. Baltensperger, and A. S. H. Prévôt, 2018: Elemental composition and source apportionment of aerosols near a freeway in Switzerland. *DUST2018*, Bari, Italy.
- Rai, P., M. Furger, J. G. Slowik, F. Canonaco, R. Huang, J. Cao, U. Baltensperger, and A. S. H. Prévôt, 2018: Source Apportionment of High Resolution Aerosol Trace Elements in Beijing, China. *IAC 2018 - International Aerosol Conference*, St. Louis, Missouri, USA.
- Rai, P., M. Furger, J. G. Slowik, F. Canonaco, R.-J. Huang, S. N. Tripathi, D. Ganguly, U. Baltensperger, and A. S. H. Prévôt, 2018: Elemental composition of ambient particulate matter in two Asian megacities measured with a near real time XRF spectrometer. *EXRS 2018 - European Conference on X-ray Spectrometry*, Ljubljana, Slovenia.
- Rai, P., M. Furger, J. G. Slowik, F. Canonaco, M. C. Minguillón, V. Yadav, J. G. Slowik, C. Hüglin, R. Fröhlich, K. Petterson, U. Baltensperger, and A. S. H. Prévôt, 2018: Source apportionment of highly time resolved trace elements during a firework episode from a rural freeway site in Switzerland. *Atmos. Chem. Phys.*, submitted.
- Furger, M., P. Rai, S. Visser, M. Elser, F. Canonaco, J. G. Slowik, R.-J. Huang, A. S. H. Prévôt, and U. Baltensperger, 2017: Source apportionment of major and trace elements in aerosols during smog episodes in large cities in China. *EGU General Assembly 2017*, Vienna, Austria.
- Rai, P., M. Furger, J. G. Slowik, F. Canonaco, R. Fröhlich, A. S. H. Prevot, and U. Baltensperger, 2017: Near real time measurements and source apportionment of aerosol trace elements in Härkingen, Switzerland. *EAC European Aerosol Conference*, Zurich, Switzerland.
- Furger, M., J. G. Slowik, M. C. Minguillón, C. Hueglin, C. Koch, A. S. H. Prévôt, and U. Baltensperger, 2016: Near-real-time trace element measurements in a rural, traffic-influenced environment with some fireworks. *EGU General Assembly 2016*, Vienna, Austria.
- Furger, M., J. G. Slowik, M. C. Minguillón, C. Hueglin, K. Petterson, A. S. H. Prévôt, and U. Baltensperger, 2016: Near-real-time trace element measurements of ambient aerosols at a rural, traffic-influenced site in Switzerland. *EXRS 2016 - European X-Ray Spectrometry*

Conference, Gothenburg, Sweden.

- Furger, M., J. G. Slowik, M. C. Minguillón, R. Fröhlich, C. Koch, K. Petterson, U. Baltensperger, and A. S. H. Prévôt, 2016: Elemental composition of ambient aerosols measured in high temporal resolution with an online x-ray fluorescence spectrometer. *EAC 2016 - European Aerosol Conference*. Tours, France.
- Furger, M., S. Visser, C. Frieh, U. Flechsig, T. Huthwelker, C. Mohr, D. E. Young, J. D. Allan, D. Green, L. R. Williams, U. Baltensperger, and A. S. H. Prévôt, 2015: Ambient aerosol sodium and chlorine concentrations in London during the ClearLo winter campaign. *EGU General Assembly 2015*, European Geosciences Union, Vienna, Austria.
- Furger, M., S. Visser, J. G. Slowik, M. Crippa, L. Poulain, U. Flechsig, K. Appel, A. S. H. Prévôt, and U. Baltensperger, 2014: Highly time-resolved trace element concentrations in aerosols during the MEGAPOLI Paris campaign. *EGU2014 - EGU General Assembly 2014*, Vienna, Austria, EGU.
- Furger, M., S. Visser, J. G. Slowik, M. Crippa, L. Poulain, N. Marchand, J. Sciare, U. Flechsig, K. Appel, U. Baltensperger, and A. S. H. Prévôt, 2014: Highly time-resolved ambient trace element concentrations in Paris during the MEGAPOLI summer campaign. *EXRS 2014 - European Conference on X-ray Spectrometry*. Bologna, Italy.
- Slowik, J. G., S. Visser, F. Markus, K. Appel, F. Canonaco, J. Cao, M. Crippa, M. Elser, U. Flechsig, and D. C. Green, 2014: Trace element source apportionment in European and Asian megacities. *IAC 2014 - International Aerosol Conference*. Buzon, Korea.
- Visser, S., M. Furger, U. Flechsig, K. Appel, R. Dressler, P. Zotter, J. G. Slowik, A. S. H. Prévôt, and U. Baltensperger, 2014: Highly time- and size-resolved measurements of trace elements during ClearLo, London. *9th International Conference on Air Quality - Science and Application*, Garmisch-Partenkirchen, Germany.
- Williams, L. R., S. Herndon, J. Jayne, A. Freedman, B. Brooks, J. Franklin, P. Massoli, E. Fortner, P. Chhabra, M. Zahniser, H. Stark, T. Onasch, D. R. Worsnop, F. Lopez-Hilfiker, C. Mohr, J. Thornton, N. L. Ng, L. Xu, B. Knighton, M. Dubey, A. Aiken, K. Gorkowski, S. Liu, T. Martin, R. Coulter, S. Visser, M. Furger, P. Zotter, A. S. H. Prévôt, J. Allan, and D. Young, 2014: Overview of ClearLo: Study of Aerosol Sources and Processing at a Rural Site Southeast of London, January-February, 2012. *ASR STM 2014*.
- Furger, M., and S. Visser, 2013: Determination of trace element concentrations in ambient aerosols by radiation-induced X-ray fluorescence spectrometry. *Spectroscopy Europe*, 11-14.
- Furger, M., S. Visser, C. Frieh, U. Flechsig, T. Huthwelker, J. Slowik, P. Zotter, D. E. Young, J. D. Allan, D. Green, U. Baltensperger, and A. S. H. Prévôt, 2013: Measuring sodium concentrations at a London urban background site with synchrotron radiation induced X-ray fluorescence spectrometry. *JUM@P '13: Joint Users' Meeting at PSI 2013*.
- Visser, S., M. Furger, U. Flechsig, K. Appel, R. Dressler, P. Zotter, J. G. Slowik, A. S. H. Prévôt, and U. Baltensperger, 2013: Highly time- and size-resolved measurements of trace elements in London during ClearLo. *EAC - European Aerosol Conference 2013*.
- Williams, L. R., S. Herndon, J. Jayne, A. Freedman, B. Brooks, J. Franklin, P. Massoli, E. Fortner, P. Chhabra, M. Zahniser, T. Onasch, M. R. Canagaratna, D. R. Worsnop, F. Lopez-Hilfiker, C. Mohr, J. Thornton, N. L. Ng, L. Xu, W. B. Knighton, M. Dubey, A. Aiken, K. Gorkowski, S. Liu, S. Visser, M. Furger, P. Zotter, and A. S. H. Prévôt, 2013: Black Carbon Containing Particles at a Rural Site Southeast of London, UK during ClearLo (Winter 2012). *AAAR 32nd Annual Conference*.
- Williams, L. R., S. Herndon, J. Jayne, A. Freedman, W. Brooks, J. Franklin, P. Massoli, E. Fortner, P. Chhabra, M. Zahniser, H. Stark, T. Onasch, D. R. Worsnop, F. Lopez-Hilfiker, C. Mohr, J.

- Thornton, N. L. Ng, L. Xu, B. Knighton, M. Dubey, A. Aiken, K. Gorkowski, T. Martin, R. Coulter, S. Visser, M. Furger, P. Zotter, and A. S. H. Prévôt, 2013: Overview of ClearfLo: Study of Aerosol Sources and Processing at a Rural Site Southeast of London. *DOE Atmospheric System Research Science Team Meeting*.
- Williams, L. R., S. Herndon, J. Jayne, A. Freedman, B. Brooks, J. Franklin, P. Massoli, E. Fortner, P. Chhabra, M. Zahniser, H. Stark, T. Onasch, M. R. Canagaratna, D. R. Worsnop, F. Lopez-Hilfiker, C. Mohr, J. Thornton, N. L. Ng, L. Xu, W. B. Knighton, M. Dubey, A. Aiken, K. Gorkowski, S. Liu, T. Martin, R. Coulter, S. Visser, M. Furger, P. Zotter, and A. S. H. Prévôt, 2013: Black Carbon Containing Particles at a Rural Site Southeast of London during ClearfLo Winter IOP EAC - *European Aerosol Conference 2013*.
- Belcher, S. E., Bohnenstengel, S. I., Allan, J., Beddows, D., Ball, S., Barlow, J., Bjoergegren, M., Bloss, W., Blyth, A., Bower, K., Bandy, B., Chemel, C., Christen, A., Coceal, O., Coe, H., Carslaw, D., Davies, F., Di Marco, C., Dorsey, J., Flemming, Z., Furger, M., Gallagher, M., Gietl, J., Green, D., Grimmond, S., Heal, M., Heard, D. E., Harrison, R., Hepburn, R., Hopkins, J., Helfter, C., Johnson, P., Kelly, F., Lee, J., Leigh, R., Lewis, A., McQuaid, J., Monks, P., Nemitz, E., Oram, D., Pauscher, L., Percival, C., Prevot, A., Reeves, C., Reynolds, A., Ricketts, H., Sokhi, R., Vaughan, G., Visser, S., Whalley, L., and Williams, P.: First results from ClearfLo, 8th International Conference on Air Quality - Science and Application, Athens, Greece, 2012.
- Furger, M., Visser, S., Frieh, C., Flechsig, U., Huthwelker, T., Mohr, C., Young, D. E., Allan, J. D., Green, D., Williams, L. R., Baltensperger, U., and Prévôt, A. S. H.: Measuring sodium concentrations in London winter aerosols with Synchrotron Radiation induced X-Ray Fluorescence Spectrometry, EXRS 2012 - European Conference on X-ray Spectrometry, Vienna, Austria, 2012, 271.
- Visser, S., Furger, M., Flechsig, U., Appel, K., Prévôt, A. S. H., and Baltensperger, U.: Two-hourly trace elemental concentrations in PM₁₀, PM_{2.5} and PM_{1.0} in Los Angeles during CalNex-LA 2010, EXRS 2012 - European Conference on X-ray Spectrometry, Vienna, Austria, 2012, 97.
- Visser, S., Furger, M., Flechsig, U., Appel, K., Prévôt, A. S. H., and Baltensperger, U.: Highly time and size-resolved trace elemental composition of aerosols during CalNex-LA 2010, EAC - European Aerosol Conference 2012, Granada, Spain, 2012.
- Young, D. E., Allan, J. D., Williams, P. I., Flynn, M. J., Liu, D., Whitehead, J. D., Prévôt, A. S. H., Visser, S., Furger, M., Gallagher, M. W., and Coe, H.: Seasonal comparison of comprehensive aerosol measurements in London during ClearfLo, European Aerosol Conference 2012, Granada, Spain, 2012.
- Young, D. E., Allan, J. D., Williams, P. I., Flynn, M. J., Liu, D., Whitehead, J. D., Robinson, N., Prévôt, A. S. H., Visser, S., Furger, M., Gallagher, M. W., and Coe, H.: Seasonal comparison of comprehensive aerosol measurements in London during ClearfLo, AAAR 31st Annual Conference Minneapolis, Minnesota, USA, 2012.
- Furger, M., Crippa¹, M., Freutel², F., Poulain³, L., Visser¹, S., Szidat⁴, S., Zotter¹, P., Prevot¹, A. S. H., and Baltensperger¹, U.: Regional vs. local aerosol sources during the MEGAPOLI Paris campaigns, IUGG General Assembly, Melbourne, Australia, 2011.
- Visser, S., Furger, M., and Prévôt, A.: High time-resolution elemental composition of particulate matter in Pasadena, CalNex Data Analysis Workshop, Sacramento, California, USA, 2011,
- Visser, S., Furger, M., Richard, A., Flechsig, U., Appel, K., Prevot, A. S. H., and Baltensperger, U.: Elemental composition of PM₁₀, PM_{2.5} and PM_{1.0} aerosols during MEGAPOLI 2010, Paris, European Aerosol Conference, Manchester, UK, 2011.
- Amato, F., M. Pandolfi, J. Pey, M. Furger, X. Querol, A. Alastuey, N. Bukowiecki, R. Gehrig, A. Richard, A. S. H. Prevot, and U. Baltensperger, 2010: A European assessment of inhalable

non-exhaust particles: Loads and chemical properties. *Air Pollution and Health*, San Diego, CA, USA, AAAR.

- Bukowiecki, N., P. Lienemann, M. Hill, M. Furger, A. Richard, A. S. H. Prévôt, U. Baltensperger, B. Buchmann, and R. Gehrig, 2010: PM10 emission factors for non-exhaust particles generated by road traffic. *Empa TAP2010 International Symposium*, Dübendorf, Switzerland.
- Furger, M., A. Richard, C. Mohr, C. Theodosi, N. Bukowiecki, P. Lienemann, U. Flechsig, K. Appel, N. Mihalopoulos, A. S. H. Prevot, and U. Baltensperger, 2010: Metal concentrations in ambient airborne particulate matter in Finokalia, Greece (FAME08). *European Conference on X-ray Spectrometry 2010*, Figueira da Foz, Portugal, EXSA.
- Furger, M., A. Richard, C. Mohr, C. Theodosi, N. Bukowiecki, P. Lienemann, U. Flechsig, K. Appel, N. Mihalopoulos, A. S. H. Prevot, and U. Baltensperger, 2010: Metallische und andere Spurenelemente in Aerosolen auf Kreta, Griechenland – Resultate der FAME08 Messkampagne. *DACH Meteorologentagung 2010*, Bonn, Deutschland, DMG.
- Richard, A., M. Furger, N. Bukowiecki, P. Lienemann, U. Flechsig, K. Appel, M. C. Minguillón, A. Prévôt, and U. Baltensperger, 2010: Source apportionment studies at different European sites with time and size resolved trace element data - the example of Zürich, Switzerland. *EGU General Assembly*, Vienna, Austria.
- Amato, F., M. Furger, M. Pandolfi, X. Querol, A. Alastuey, N. Bukowiecki, R. Gehrig, A. Richard, A. S. H. Prevot, and U. Baltensperger, 2009: Road dust emission profiles and levels from paved road in Mediterranean and central European cities. *EGU 2009*, European Geosciences Union.
- Bukowiecki, N., P. Lienemann, R. Figi, M. Hill, A. Richard, M. Furger, K. Rickers, S. S. Cliff, U. Baltensperger, and R. Gehrig, 2009: Emission factors and source apportionment for abrasion particles produced by road traffic. *EGU General Assembly 2009*, Vienna, Geophysical Research Abstracts, 2945.
- Furger, M., F. Amato, A. Alastuey, N. Bukowiecki, R. Gehrig, C. Mohr, M. Pandolfi, A. S. H. Prevot, X. Querol, A. Richard, S. Weimer, and U. Baltensperger, 2009: Measurements of traffic-induced abrasion particles in a Swiss city. *EGU General Assembly 2009*, European Geosciences Union.
- Richard, A., M. Furger, N. Bukowiecki, P. Lienemann, M. Nachttegaal, A. S. H. Prévôt, and U. Baltensperger, 2009: Hourly size-segregated sampling of trace elements and subsequent source apportionment. *Geochimica et Cosmochimica Acta*, Goldschmidt Conference, Davos, A1097.
- Richard, A., M. Furger, N. Bukowiecki, P. Lienemann, M. Nachttegaal, A.S.H. Prevot and U. Baltensperger, 2009: Source apportionment studies for trace elements based on hourly size-segregated data. EAC, Karlsruhe, Germany.
- Richard, A., M. Furger, N. Bukowiecki, P. Lienemann, M. Nachttegaal, A.S.H. Prevot and U. Baltensperger, 2009: Hourly-size segregated sampling of trace elements and subsequent source apportionment. JUMP09 Users Workshop @ SLS, Villigen.
- Furger, M., A. Richard, N. Bukowiecki, P. Lienemann, D. Grolimund, A. S. H. Prévôt, and U. Baltensperger, 2008: Trace elements in hourly ambient aerosol samples determined with synchrotron XRF. *European Conference on X-Ray Spectrometry*, Cavtat, Dubrovnik, Croatia.
- Richard, A., M. Furger, N. Bukowiecki, P. Lienemann, A. S. H. Prevot, and U. Baltensperger, 2008: Measurements of trace elements with Rotating Drum Impactors and subsequent X-ray fluorescence spectroscopy. *EGU General Assembly 2008*, Vienna, Austria, European Geosciences Union, EGU2008-A-06611.
- Richard, A., M. Heringa, M. Sattler, N. K. Meyer, M. Furger, A. Prévôt, and C. Gaegauf, 2008: Trace elements in wood combustion performed with different domestic heating stoves. 12th ETH-

Conference on Combustion Generated Nanoparticles, Zurich, Switzerland.

- Richard, A., M. Furger, N. Bukowiecki, P. Lienemann, D. Grolimund, A. S. H. Prévôt, and U. Baltensperger, 2008: Elemental analysis of ambient aerosol samples with synchrotron XRF. European Conference on X-Ray Spectrometry, Cavtat, Dubrovnik, Croatia.
- Richard, A., M. Furger, N. Bukowiecki, P. Lienemann, M. Nachttegaal, A. S. H. Prévôt, and U. Baltensperger, 2008: Elemental analysis of ambient aerosol samples with synchrotron XRF Workshop on X-ray absorption spectroscopy and advanced XAS techniques, Villigen PSI, Switzerland.
- Bukowiecki, N., P. Lienemann, C. N. Zwicky, M. Hill, R. Gehrig, F. Hegedüs, M. Furger, U. Baltensperger, G. Falkenberg, D. Grolimund, M. Willmann, and S. S. Cliff, 2007: RDI-SR-XRF: A technique for the detection of trace elements in ambient air with hourly resolution at concentration levels in the pg m^{-3} range. *AAAR Annual Meeting*, Reno, Nevada, USA.
- Furger, M., A. Béguin, A. Richard, N. Bukowiecki, P. Lienemann, and U. Baltensperger, 2007: Determination of trace elements in ambient aerosols by synchrotron XRF. *11th ETH-Conference on Combustion Generated Nanoparticles*, Zürich, Switzerland, TTM, A. Mayer, CD-ROM.
- Furger, M., N. Bukowiecki, J. Sandradewi, M. R. Alfarra, P. Lienemann, S. Szidat, A. S. H. Prevot, and U. Baltensperger, 2007: Elemental composition of winter PM10 aerosol at rural and urban sites determined with synchrotron X-ray fluorescence spectrometry. *EGU General Assembly 2007*, Vienna, Austria, European Geosciences Union, CD-ROM.
- Furger, M., A. Richard, N. Bukowiecki, A. Béguin, A. S. H. Prévôt, and U. Baltensperger, 2007: Spurenelemente in Feinstaub (PM10) im Winter in städtischen und ländlichen Gebieten. *Deutsch-Oesterreichisch-Schweizerische Meteorologen-Tagung (DACH2007)*, Hamburg, Germany, Deutsche Meteorologische Gesellschaft, http://meetings.copernicus.org/dach2007/download/DACH2007_A_00033.pdf.
- Bukowiecki, N., and Coauthors, 2006: Characterization of atmospheric aerosols with synchrotron radiation. Workshop on X-ray absorption spectroscopy and micro-spectroscopic techniques, Villigen, Switzerland, Paul Scherrer Institut.
- Bukowiecki, N., and Coauthors, 2006: RDI-SR-XRF: Hourly detection of trace elements in ambient air at low concentration levels. 7th SLS User Meeting, Villigen, Switzerland.
- Bukowiecki, N., and Coauthors, 2006: RDI-SR-XRF: Detection of trace elements in ambient air at low concentration levels with high temporal resolution. ISEAC 34 - 34th International Symposium on Environmental Analytical Chemistry, Hamburg, Germany.
- Furger, M., and Coauthors, 2006: Feinstaub-Episoden im Winter 2005/06. SGM Jahrestagung, Zürich, Switzerland, MeteoSwiss.
- Prévôt, A. S. H., and Coauthors, 2006: The high PM10 episode in Switzerland in January and February 2006. 10th ETH Conference on Combustion Generated Nanoparticles, Zurich, Switzerland.
- Prévôt, A. S. H., and Coauthors, 2006: The high PM10 episode in Switzerland in January and February 2006. 10th ETH Conference on Combustion Generated Nanoparticles, Zurich, Switzerland.
- Rogiers, N., M. Furger, and W. Eugster, 2006: CO2 Exchange of a Grassland and a Wetland in the Swiss Pre-Alps during the 2003 Heat Wave. EGU General Assembly, Vienna, Austria, EGU06-A-01038.
- Sandradewi, J., M. Furger, A. S. H. Prevot, E. Weingartner, R. Schmidhauser, S. Szidat, and U. Baltensperger, 2005: A study of wood burning and traffic aerosol in southern Alpine valleys. *EAC 2005*, Ghent, Belgium.

- Alfarra, M. R., A. S. H. Prevot, J. Sandradewi, S. Weimer, M. Furger, M. Mohr, E. Weingartner, and U. Baltensperger, 2005: Insights into organic aerosols from wood burning and traffic emissions using an Aerodyne aerosol mass spectrometer. *European Aerosol Conference*, Ghent, Belgium.
- Furger, M., V. Mitev, R. Matthey, M. Collaud Coen, and E. Weingartner, 2005a: Long-range transport of aerosols to Switzerland in August 2003. *EGU General Assembly 2005*, Vienna, Austria, EGU05-A-03941.
- Furger, M., R. Werner, V. Mitev, M. Frioud, B. Neininger, and A. S. H. Prévôt, 2005b: Aerosol measurements in the Rhine Valley during foehn – another FORM perspective. *International Conference on Alpine Meteorology and MAP Meeting 2005*, Zadar, Croatia, Croatian Meteorological Society, 272-275.
- Ordóñez, C., H. Mathis, M. Furger, S. Henne, C. Hüglin, J. Staehelin, H. E. Scheel, and A. S. H. Prévôt, 2005: Trends of near-surface ozone at different altitudes in Central Europe. *EGU General Assembly*, Vienna, Austria, European Geosciences Union, EGU05-A-07354.
- Rogiers, N., W. Eugster, and M. Furger, 2005a: Carbon and water vapor exchange at two differently managed grasslands in the Swiss subalps. *6th Swiss Global Change Day*, Bern, Switzerland.
- Rogiers, N., W. Eugster, and M. Furger, 2005b: Comparison of NEE of a protected wetland and an extensively used grassland in the Swiss Pre-Alps. *EGU General Assembly*, Vienna, Austria, European Geosciences Union, EGU05-A-06260.
- Sandradewi, J., M. Furger, A. S. H. Prévôt, E. Weingartner, R. Schmidhauser, S. Szidat, and U. Baltensperger, 2005: Characterization of aerosol particles due to wood burning in populated area and motor vehicles on highway south of St. Gotthard Tunnel. *European Aerosol Conference*, Ghent, Belgium, 718.
- Furger, M., N. Rogiers, and W. Eugster, 2004a: CO₂ Bilanz über einer Voralpenwiese im Hitzesommer 2003. *Deutsch-Oesterreichisch-Schweizerische (DACH) Meteorologen-Tagung 2004*, Karlsruhe, Germany, CD-ROM.
- Furger, M., N. Rogiers, W. Eugster, E. Bantelmann, and R. Siegwolf, 2004b: Soil moisture and water vapour deficit at the Swiss Carbomont field site measured during the hot summer of 2003. *EGU 1st General Assembly*, Nice, France, EGU04-A-01796 (poster).
- Henne, S., A. S. H. Prevot, and M. Furger, 2004: First climatological analysis of mountain venting using water vapour profiles up-wind and down-wind of the Alps. *11th Conference on Mountain Meteorology and the Mesoscale Alpine Program (MAP)*, Mt. Washington, New Hampshire, USA, American Meteorological Society, CD-ROM.
- Ordóñez, C., H. Mathis, M. Furger, A. S. H. Prevot, C. Hüglin, and J. Staehelin, 2004: Trends of ozone in central Europe at different altitudes. *Quadrennial Ozone Symposium*, Kos, Greece.
- Prevot, A. S. H., S. Henne, and M. Furger, 2004: First climatological analysis of mountain venting using water vapour profiles up-wind and down-wind of the Alps. *EGU 1st General Assembly*, Nice, France, European Geosciences Union.
- Rogiers, N., W. Eugster, and M. Furger, 2004a: Auswirkung von Mikroklima und Landnutzung auf die CO₂-Flüsse über einem subalpinen Grasland. *Biosphere-Atmosphere Exchange Research in Switzerland*, Sarnen, Switzerland, Atmospheric Chemistry and Physics Commission of scnat, 11-12.
- Rogiers, N., W. Eugster, M. Furger, and R. Siegwolf, 2004b: Impact of land-management on ecosystem carbon fluxes at an alpine grassland site. *EGU 1st General Assembly*, Nice, France, EGU04-A-02693 (oral presentation).
- Furger, M., N. Rogiers, W. Eugster, E. Bantelmann, and R. Siegwolf, 2003: Carbon dioxide and

- water vapour fluxes over grassland in the Swiss Alps. *ICAM/MAP Meeting 2003*, Brig, Switzerland, MeteoSwiss, 181-184.
- Furger, M., N. Rogiers, W. Eugster, E. Bantelmann, and R. T. W. Siegwolf, 2003: Climatological characteristics and significance of the first measurement season at the Swiss Carbomont field site. *EGS-AGU-EUG Joint Meeting*, Nice, France, EAE03-A-03335, BG4-1FR1P-1929.
- Rogiers, N., W. Eugster, M. Furger, E. Bantelmann, and R. T. W. Siegwolf, 2003: Seasonal variation of and the influence of land use on carbon and water vapour fluxes at the Swiss Carbomont field site. *EGS-AGU-EUG Joint Meeting*, Nice, France, EAE03-A-05780; AS2-1WEP-1088.
- Furger, M., E. Bantelmann, W. Eugster, N. Rogiers, and R. T. W. Siegwolf, 2003: Micrometeorological aspects of carbon fluxes and their stable isotope signature over alpine grassland. *EGS-AGU-EUG Joint Meeting*, Nice, France, EAE03-A-05780, AS2-1TU3O-008.
- Bantelmann, E., N. Rogiers, M. Furger, W. Eugster, and R. Siegwolf, 2003: Isotopes in leaf water reflect environmental changes. *4th Swiss Global Change Day*, Bern, Switzerland, Poster.
- Henne, S., M. Furger, S. Nyeki, and A. S. H. Prévôt, 2003: Quantification of vertical transport in high alpine terrain. *EGS-AGU-EUG Joint Meeting*, Nice, France, EAE03-A-10154, AS18-1TU2P-0742.
- Prévôt, A. S. H., M. Furger, and J. Dommen, 2003: Vacation effect, weekend effect and trends of ozone north of Milano, Italy. *EGS-AGU-EUG Joint Meeting*, Nice, France, EAE03-A-11474, AS13-1FR1P-1143.
- Paulsen, D., M. Furger, M. Kalberer, K. Lehtinen, A. S. H. Prévôt, R. Richter, M. Sax, M. Steinbacher, E. Weingartner, and U. Baltensperger, 2003: The new PSI smog chamber for the study of atmospheric aerosols and chemistry. *EGS-AGU-EUG Joint Meeting*, Nice, France, EAE03-A-13482, AS19-1MO4O-006.
- Flamant, C., P. Drobinski, A. Protat, B. Benech, B. Chimani, M. Frioud, M. Furger, C. Häberli, G. Jaubert, M. Lothon, V. Mitev, H. Richner, R. Steinacker, S. Tschannett, and S. Vogt, 2003: Föhn/cold-pool interactions in the Rhine valley during IOP 15 of the MAP SOP. *ICAM/MAP Meeting 2003*, Brig, Switzerland, MeteoSwiss, 424-427.
- Frioud, M., V. Mitev, R. Matthey, H. Richner, and M. Furger, 2003: Variation of the aerosol stratification over the Rhine valley during foehn development: a backscatter lidar study. *ICAM/MAP Meeting 2003*, Brig, Switzerland, MeteoSwiss, 432-435.
- Prévôt, A. S. H., R. O. Weber, M. Furger, J. Dommen, and B. Neiningner, 2002: Ozone and vertical transport processes in southern Switzerland. *EUROTRAC II Meeting*, 4.
- Prévôt, A. S. H., R. O. Weber, M. Furger, and J. Dommen, 2002: Ozone in Southern Switzerland - Trends and 'special effects'. *EUROTRAC Meeting 2002*, Garmisch-Partenkirchen.
- Drobinski, P., C. Haeberli, E. Richard, B. Bénech, H. Berger, A. Dabas, P. H. Flamant, M. Furger, M. Lothon, and R. Steinacker, 2002: Unstationary and inhomogeneity aspects of the MAP IOP 12 south foehn event in the Rhine Valley. 10th Conference on Mountain Meteorology and MAP Meeting 2002, Park City, Utah, USA, American Meteorological Society, 315-318.
- Furger, M., R. T. W. Siegwolf, and W. Eugster, 2002: Determination of the carbon and water vapour net ecosystem exchange rates in the Swiss Pre-Alps - a contribution to the CARBOMONT project. *EGS XXVII General Assembly*, Nice, France, EGS02-A-00821; OA13-1MO5P-059.
- Paulsen, D., M. Kalberer, M. Sax, U. Baltensperger, E. Weingartner, and M. Furger, 2002: A newly built smog chamber for the study of atmospheric aerosol chemistry: first results and instrumentation. *EGS XXVII General Assembly*, Nice, France, EGS02-A-06353; OA20.01-1MO5P-086.

- Furger, M., A. S. H. Prévôt, and R. O. Weber, 2002: The effect of north foehn on boundary layer ozone concentrations in the Po Basin. 15th Symposium on Boundary Layers and Turbulence, Wageningen, The Netherlands, American Meteorological Society, 237-238.
- Rogiers, N., E. Bantelmann, W. Eugster, M. Furger, and R. Siegwolf, 2002: Carbon and water vapor Net Ecosystem Exchange rates in the Swiss Pre-Alps - A contribution to the Carbomont project. SANW Tagung 2002, Davos, Switzerland, Swiss Academy of Sciences, 79-80.
- Furger, M., W. Eugster, N. Rogiers, E. Bantelmann, and R. Siegwolf, 2002: Carbon sinks and carbon management in European mountains. AGU Fall Meeting 2002, San Francisco, American Geophysical Union, Abstract U22A-09.
- Furger, M., 2002: AEROCHEM II - Modelling the impact of aircraft emissions on ozone and other chemical compounds in the atmosphere. Editorial, Meteor. Z., **11**, 139-140.
- Bantelmann, E., N. Rogiers, M. Furger, W. Eugster, and R. Siegwolf, 2002: Fluxes of a mountain grassland: a contribution to the Carbomont project. Poster, ZOek Tagung ETHZ 2002, Zurich, Switzerland.
- Drobinski, P., R. Benoit, A. Dabas, P. H. Flamant, M. Furger, C. Häberli, R. Steinacker, C. Boitel, A. Delaval, P. Delville, J. Donier, C. Loth, and B. Romand, 2001: Unstationary aspects of flow splitting in the Rhine Valley: IOP 12 case study. MAP Meeting 2001, Schliersee, Germany, MeteoSwiss, 138-141.
- Frioud, M., V. Mitev, R. Matthey, H. Richner, S. Gubser, and M. Furger, 2001: Backscatter lidar detection of the evolution of the aerosol stratification in the PBL during Foehn events in FORM. MAP Meeting 2001, Schliersee, Germany, MeteoSchweiz, 179-182.
- Furger, M., K. Baumann, P. Drobinski, C. Häberli, B. Neiningner, and S. Vogt, 2001: Vertical velocity measurements during the foehn of 24 October 1999 in the Rhine valley. European Geophysical Society XXVI General Assembly, Nice, France.
- Furger, M., S. Gubser, and F. von Arx, 2001: Vertikalwinde und Schwerewellen in einem Föhntal - Fallstudien mit Szintillometern und Mikrobarographen während MAP-FORM. DACH-Meteorologen-Tagung 2001, Vienna, Austria, ZAMG, (CD-ROM).
- Gubser, S., M. Furger, F. von Arx, and H. Richner, 2001: Wave activity in the boundary layer and the erosion of the cold air pool in the Rhine Valley - A case study (22 October 1999). MAP Meeting 2001, Schliersee, Germany, MeteoSchweiz, 30-31.
- Drobinski, P., R. Benoit, A. Dabas, P. H. Flamant, M. Furger, C. Häberli, R. Steinacker, C. Boitel, A. Delaval, P. Delville, J. Donier, C. Loth, and B. Romand, 2001: Unstationary aspects of flow splitting in the Rhine Valley: IOP 12 case study. MAP Meeting 2001, Schliersee, Germany.
- Baumann, K., H. Maurer, G. Rau, M. Piringer, U. Pechinger, M. Furger, A. Prévôt, and B. Neiningner, 2000: ROM project - Air mass analysis based on PBL soundings and trajectories. 26th International Conference on Alpine Meteorology, Innsbruck, Austria, 8 pp., ISSN 1016-6254 (CDROM).
- Furger, M., 2000: Scintillometric wind measurements in the Rhine Valley during MAP-FORM. MAP Meeting 2000, Bohinjska Bistrica, Slovenia, MAP Newsletter No. 13, 44-45.
- Furger, M., 2000: Crosswind measurements with scintillometers at 500 m above valley floor during foehn. 9th Conf Mountain Meteor., Aspen, Colorado, American Meteorological Society, 75-78.
- Graber, W. K., P. Schuhmacher, and M. Furger, 2000: Large-scale effects of Alpine land use changes on the atmospheric water cycle. Intl. Congress on Modelling and Simulation, Hamilton, New Zealand, 526-535.
- Graber, W. K., P. Schuhmacher, and M. Furger, 2000: An atmospheric water vapor cycle model for

evaluating large-scale effects of Alpine land use changes on the atmospheric water cycle. EnviroSoft 2000, Bilbao, Spain.

- Prévôt, A. S. H., M. Furger, J. Dommen, and B. Neininger, 2000: Vertical pollutant transport over Alpine foothills. 9th Conf Mountain Meteor., Aspen, Colorado, American Meteorological Society, 257-258.
- Whiteman, C. D., R. Mayr, M. Furger, and E. Dreiseitl, 2000: Changes in the alpine boundary layer during the solar eclipse of 11 August 1999. 9th Conf Mountain Meteor., Snowmass, Colorado, American Meteorological Society, 140-144.
- Furger, M., J. Keller, L. P. Poggio, and A. S. H. Prévôt, 1999: Atmospheric boundary layer structure in a deep valley during VOTALP 96. MAP Meeting 99, Appenzell, Switzerland, Swiss Meteorological Institute, 43.
- Furger, M., L. P. Poggio, and E. Mursch-Radlgruber, 1999: Slope winds, valley winds, sodars and scintillometers during VOTALP '96. EGS 24th General Assembly, The Hague, Netherlands, European Geophysical Society, 493.
- Furger, M., R. Siegwolf, P. Geissbühler, G. Stefanicki, and W. Graber, 1999: Budgetierung der CO₂ und H₂O Flüsse anhand der Eddy Kovarianz Analyse durch Boden- und Flugmessungen, kombiniert mit Szintillationsanemometrie. GfÖ99 29. Jahrestagung der Gesellschaft für Ökologie, Bayreuth, Germany, Universität Bayreuth, V2.12.
- Geissbühler, P., R. Siegwolf, M. Furger, and W. Graber, 1999: Kovarianz Messungen von CO₂ und Wasserdampf Flüssen im komplexen Gelände. 179. SANW Jahresversammlung, Luzern, Switzerland.
- Graber, W. K. and M. Furger, 1999: Evaluation of CO₂, water vapour, and their turbulent exchange rates with an airborne open-path infrared gas analyzer. EnviroSense - Conference on Spectroscopic Atmospheric Environmental Monitoring Techniques, Munich, European Optical Society, 155-161.
- Prévôt, A. S. H., J. Dommen, M. Furger, B. Neininger, and M. Bäumle, 1999: Vertikaler Luftschadstofftransport über komplexem Gelände. 179. SANW Jahresversammlung, Luzern.
- Siegwolf, R., P. Geissbühler, Y. Scheidegger, M. Saurer, M. Furger, G. Stefanicki, and W. K. Graber, 1999: Characterization of the CO₂ and H₂O-fluxes in a beech forest and a hay meadow, using eddy covariance method and the stable carbon and oxygen isotopes. GfÖ99 29. Jahrestagung der Gesellschaft für Ökologie, Bayreuth, Germany, Universität Bayreuth, P2.6.
- Furger, M., J. Dommen, W. K. Graber, L. Poggio, A. Prévôt, and B. Neininger, 1998: The VOTALP valley campaign 1996 - results and climatological evaluation. 25th International Conference on Alpine Meteorology (ICAM'98), Turin, Italy, Regione Piemonte, Direzione dei Servizi tecnici di prevenzione, Settore meteorografico e reti di monitoraggio, 246-249.
- Furger, M., L. Poggio, W. K. Graber, and A. Prévôt, 1998: Towards diurnal airmass budgets in the Mesolcina valley: Scintillometer and DOAS measurements. VOTALP Open Workshop, Vienna, Austria, Universität für Bodenkultur, IMP.
- Furger, M., L. Poggio, A. S. H. Prévôt, and W. K. Graber, 1998: Wind measurements by scintillometer at different locations in an Alpine valley. 8th Conference on Mountain Meteorology, Flagstaff, Arizona, American Meteorological Society, 197-198.
- Graber, W. K., R. Siegwolf, and M. Furger, 1998: Exchange of CO₂ and water vapour between a composite landscape and the atmosphere in the Alps. HeadWater '98, Meran/Merano, Italy, IAHS, 107-114.
- Graber, W. K., R. T. W. Siegwolf, and M. Furger, 1998: Land use change in the Alps and its effect on CO₂ and water exchange between a composite ecosystem and the atmosphere. MODSIM 97,

- Hobart, Tasmania, The Modelling and Simulation Society of Australia Inc., 234-239.
- Lugauer, M., U. Baltensperger, M. Furger, H. W. Gäggeler, D. T. Jost, and M. Schwikowski, 1998: Vertical transport processes in the lower troposphere above the Alpine region. 8th Conference on Mountain Meteorology, Flagstaff, Arizona, AMS, 159-162.
- Poggio, L., M. Furger, W. K. Graber, and A. Prévôt, 1998: SCIDAR/DOAS Measurements during the VOTALP valley experiment. European Geophysical Society 23rd General Assembly, Nice, France, EGS.
- Prévôt, A., J. Dommen, and M. Furger, 1998: Morning VOC concentration minima on the Mesolcina valley floor. VOTALP Open Workshop, Vienna, Austria, Universität für Bodenkultur, 4 pp.
- Prévôt, A., M. Furger, B. Neininger, L. Poggio, W. Graber, and J. Dommen, 1998: Mesolcina valley = highly efficient air pump for vertical transport. VOTALP Open Workshop, Vienna, Austria, Universität für Bodenkultur, 5 pp.
- Prévôt, A., M. Furger, B. Neininger, L. Poggio, W. Graber, and J. Dommen, 1998: Mesolcina valley = highly efficient air pump for vertical transport. 8th Conference on Mountain Meteorology, Flagstaff, Arizona, American Meteorological Society, 401-403.
- Furger, M., A. Prévôt, L. Poggio, J. Dommen, and W. K. Graber, 1997: Observations of ozone transport in a valley in the Swiss Alps. 12th Symposium on Boundary Layers and Turbulence, Vancouver, British Columbia, Canada, American Meteorological Society, Boston, 512-513.
- Geissbühler, P., M. Furger, and R. Siegwolf, 1997: Determination of CO₂ and H₂O exchange between forest and grassland over complex terrain. EGS Meeting 1997, Vienna, Austria.
- Graber, W. K., M. Furger, and L. Poggio, 1997: DOAS and scintillation anemometry for the determination of trace gas fluxes and budgets. ENVIROSENSE 97, Munich, Germany, SPIE, 128-136.
- Poggio, L., M. Furger, and W. K. Graber, 1997: Scintillation crosswind and turbulence measurement over complex terrain. EGS General Assembly 1997, Vienna, Austria.
- Furger, M., M. Jenni, and W. Schmid, 1996: The severe storm of 22 July 1995 in northern Switzerland - a tornado case study? 24th International Conference on Alpine Meteorology (ICAM 96), Bled, Slovenia, Hydrometeorological Institute of Slovenia, Ljubljana, 153-159.
- Furger, M., L. Poggio, and W. K. Graber, 1996: Measuring path-averaged fluxes of H₂O and O₃ in an Alpine valley with optical methods. MAP Meeting 1996, Hall, Tirol, Austria, Poster.
- Poggio, L., M. Furger, and W. K. Graber, 1996: A comparison of scintillation crosswind methods. IGARSS'96, Lincoln, Nebraska, 399-401.
- Wotawa, G., H. Kromp-Kolb, H. Scheifinger, P. Seibert, A. Stohl, E. Mursch-Radlgruber, G. Rengarajan, M. Furger, W. Graber, B. Neininger, and B. Gomiscek, 1996: The EU research project VOTALP - objectives and first results. 24th International Conference on Alpine Meteorology (ICAM 96), Bled, Slovenia, Hydrometeorological Institute of Slovenia, 297-303.
- Furger, M., W. K. Graber, L. Poggio, and M. Rohde, 1995: A field evaluation of optical crosswind profiling methods. 9th Symposium on Meteorological Observations and Instrumentation, Charlotte, North Carolina, USA, American Meteorological Society, 135-138.
- Graber, W. K., M. Furger, and L. Poggio, 1995: SCIDAR: Laser and LED based wind sensing by scintillation detection and ranging. Laser '95, Munich, 121-129.
- Furger, M. and C. D. Whiteman, 1994: Boundary Layer Heat Budgets from Wind Profiler/Radio Acoustic Sounding Systems Data: A Feasibility Study. 3rd Atmospheric Radiation Measurement (ARM) Science Team Meeting, Norman, Oklahoma, 287-290.

- Furger, M., C. D. Whiteman, and J. M. Wilczak, 1994: Atmospheric boundary layer heat budgets computed from meso-gamma-scale wind profiler/RASS networks. 3rd International Symposium on Tropospheric Profiling: Needs and Technologies, Hamburg, Germany, AMS, 113-116.
- Graber, W. K. and M. Furger, 1994: Laser wind sensing: Wind measurement by optical scintillation methods. *Laser in remote sensing*, 11. Intl. Congr. LASER 93, Munich, Springer, 214-220.
- Furger, M., 1990: Climatological aspects of the wind field over Payerne, Switzerland. 21st International Conference on Alpine Meteorology (ICAM-90), Engelberg, Switzerland, 330-333.
- Wanner, H. and M. Furger, 1989: The Bise - climatology of a regional wind north of the Alps. International Conference on Mountain Meteorology and ALPEX, Garmisch-Partenkirchen, FRG, DLR Oberpfaffenhofen, 26-27.
- Furger, M. and J. Flückiger, 1987: A case study of a cold front over complex terrain. 5th ALPEX-REGIONAL Meeting, St. Martin im Gnadental, Tyrol, Austria, Swiss Meteorological Institute, 7.
- Furger, M. and J. Engel, 1986: Mesoscale analyses of temperature, pressure and wind fields over Switzerland: Further results. 4th ALPEX-Regional Meeting, Oberpfaffenhofen, ALPEX-REGIONAL, c/o Swiss Meteorological Institute, Postfach, CH-8044 Zürich, Switzerland, 9-10.
- Furger, M., H. Wanner, and J. Engel, 1986: Meso-scale analyses of temperature, pressure and wind fields over Switzerland: A case study of a foehn. Conference on Scientific Results of the Alpine Experiment (ALPEX), Venice, Italy, 603-613.
- Davies, H. C., P. Binder, and M. Furger, 1984: Dynamical considerations of Alpine upstream flow regimes. 18th International Conference on Alpine Meteorology (ICAM 84), Opatija, Yugoslavia, 43-46.
- Furger, M., M. Baumgartner, J. Engel, and H. Wanner, 1984: Mesoskalige Analysen des bodennahen Temperatur-, Druck- und Windfeldes über der Schweiz. 2. ALPEX-CH Kolloquium, 164. Jahresversammlung der Schweizerischen Naturforschenden Gesellschaft, Zürich, Schweizerische Meteorologische Anstalt, 12-13.

Books and Book Sections

- Willemse, S., and M. Furger, 2016: *From weather observations to atmospheric and climate sciences in Switzerland : Celebrating 100 years of the Swiss Society for Meteorology: A book of the Swiss Society for Meteorology*. vdf Hochschulverlag an der ETH Zürich, printed and online, 456 pp.
- Furger, M., 2016: The Swiss Society for Meteorology – the first 100 years. *From weather observations to atmospheric and climate sciences in Switzerland*. S. Willemse, and M. Furger, Eds., vdf Hochschulverlag an der ETH Zürich, 19-29.
- Baltensperger, U., and M. Furger, 2008: Aerosol chemistry in remote locations. In: *Environmental chemistry of aerosols*, I. Colbeck, Ed., Blackwell Publishing, 217-252.
- W. K. Graber and M. Furger, 2002: Field techniques for atmospheric systems. In: *Environmental Systems*, edited by A. Sydow, in *Encyclopedia of Life Support Systems (EOLSS)*, Developed under the auspices of UNESCO, EOLSS Publishers, Oxford, UK, [<http://www.eolss.net>]
- W. K. Graber and M. Furger, 2002: Measurement tools for atmospheric systems. In: *Environmental Systems*, edited by A. Sydow, in *Encyclopedia of Life Support Systems (EOLSS)*, Developed under the auspices of UNESCO, EOLSS Publishers, Oxford, UK, [<http://www.eolss.net>]
- Graber, W. K., P. Schuhmacher, and M. Furger, 2000: An atmospheric water vapor cycle model for

evaluating large-scale effects of Alpine land use changes on the atmospheric water cycle. Computer Techniques to Environmental Studies VIII, G. Ibarra, C. A. Brebbia, and P. Zanetti, Eds., 271-278.

Graber, W. K., R. T. W. Siegwolf, and M. Furger, 1999: CO₂ and water vapour exchange between the composite test area and the atmosphere over Monte Bondone. Land-use changes in European mountain ecosystems: ECOMONT concepts and results, A. Cernusca, U. Tappeiner, and N. Bayfield, Eds., Blackwell Wissenschafts-Verlag, 268-271.

Graber, W. K., R. T. W. Siegwolf, and M. Furger, 1999: Gas exchange between experimental sites and the atmosphere. Land-use changes in European mountain ecosystems: ECOMONT concepts and results, A. Cernusca, U. Tappeiner, and N. Bayfield, Eds., Blackwell Wissenschafts-Verlag, 145-150.

Schüpbach, E., M. Furger, M. Heeb, G. d. Morsier, and F. X. Troxler, 1991: Die Ausbreitungsverhältnisse in der Schweiz. Luftschadstoffe und Lufthaushalt in der Schweiz, E. Schüpbach and H. Wanner, Eds., vdf Verlag der Fachvereine, 65-83.

Furger, M., 1990: Die Radiosondierungen von Payerne. Dynamisch-klimatologische Untersuchungen zur Vertikalstruktur des Windfeldes, Geographisches Institut der Universität Bern, Universität Bern, 191 pp.

Furger, M., H. Wanner, J. Engel, F. X. Troxler, and A. Valsangiacomo, 1989: Zur Durchlüftung der Täler und Vorlandsenken der Schweiz. Resultate des Nationalen Forschungsprogrammes 14. Vol. P20, Geographica Bernensia, Geographisches Institut der Universität Bern, 162 pp.

Furger, M., G. Nejedly, M. Heeb, P. Lehmann, G. de Morsier, and P. Tercier, 1991: Fallstudie 18. bis 22. Februar 1985. Lufthaushalt, Luftverschmutzung und Waldschäden in der Schweiz. NFP14, E. Schüpbach, Ed., vdf Verlag der Fachvereine, 105-127.