

Wolfgang Gurgiser

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Employments

- since 2014 Coordinator of the Research Focus Alpine Space - Man and Environment, University of Innsbruck (uibk.ac.at/alpinerraum)
- 2012 - 2015 FWF project member at the Institute of Meteorology and Geophysics
- 2010 - 2011 Development of an outreach project (www.klimaschule.at)
- 2009 - 2010 Employee (part time) of the Alpine Research Center, Obergurgl, Austria
- 2006 - 2010 Employee (part time) at the tourism association "Silberregion Karwendel", Schwaz, Austria
- 2005 - 2008 Trainee at the Austrian Alpine Club, Innsbruck, Austria

Education

- Juni 2011 - Feb. 2014 PhD Studies in Atmospheric Sciences, Institute of Metrology and Geophysics, University of Innsbruck (*PhD Thesis: Modeling mass and energy balance on Shallap glacier, Peru*)
- Okt. 2003 - Feb. 2004; March 2005 - Jul. 2009 Master studies at the Institute of Metrology and Geophysics, University of Innsbruck (*performance scholarship 2005 & 2006*)
- Feb. 2004 - Jul. 2005 Civil service at the Red Cross rescue service



Research Projects

Co-PI: Spatio-temporal variability in water availability and demand in the Peruvian Andes (2018-2021), <https://agroclim-huaraz.info>.

Co-PI: Snow-cover dynamics and mass balance on mountain glaciers (2018-2021), http://acinn.uibk.ac.at/research/ice-and-climate/projects/DACH_HEF

Conference projects

Responsible organizer of International Mountain Conference 2019 ([IMC2019](#)) and Student4Student Summer School ([S4SSS2019](#))

Teaching

Development or co-development of (mainly University of Innsbruck) courses

“[Detecting, understanding and communicating climate change](#)”, “Climate, Glaciology, Hydrology”, “Climate Change and Consequences”, “Mountain Tourism”, “Natural Hazards in Mountain regions”, “Transparency and Communication in Earth Sciences”, “Umweltkonflikte in Peru” (joined with University Hamburg; [further Infos](#)), “About Outreach” (for EU-Marie Curie Network Training),” Preparatory Workshop I and II for “Students for Students Summer School”, ”About Glaciers” (for University of Alabama abroad courses)

Conference participations

Foro Glaciares 2013, Huaraz
Davos Atmosphere and Cryosphere Assembly 2013, Davos
AGU Fall Meeting 2013, San Francisco
Alpine Glaciology Meeting 2014, Innsbruck
Austrian Climate Day 2014, Innsbruck (*Best Poster Award*)
ICAM 2015, Innsbruck
Mountains of our future Earth 2015, Perth
EGU General Assembly 2013-19, Vienna

Field experiences

Planning measurement campaigns, installing measurements systems like weather stations in Alpine environments (2007 - 2008 Inn Valley, Austria; 2010 - 2012 Ötz valley, Austria; 2011-2014, 2018 Cordillera Blanca, Peru;)



Glaciological and hydrological field work on Austrian Glaciers (from 2010) and on Shallap Glacier, Cordillera Blanca, Peru (2011-2013), Agro-climatic field work Huaraz area, Peru (2018)

Trainings courses

Field safety courses (glaciers, avalanches)

International NCCR Climate Summer School "The Water Cycle in a Changing Climate: Observations, Scenarios, Impacts", 2012

International Summer School in Glaciology, University of Fairbanks, 2012

Short course in physical hydrology, University of Saskatchewan, 2011

Monsoon Variability, Teleconnections, and Impacts on Mid to Low Latitude Glaciers (Obergurgl, Austria), 2010

Outreach

Various activities since 2010 for e.g. Nature Park Ötztal, Forum Alpbach, Natopia, regionals schools, Erasmus+, e.g. www.erasmusplusalps.com, www.klimaschule.at

Peer-reviewed Publications

Zolles, T., Maussion, F., Galos, S. P., Gurgiser, W., and Nicholson, L.: Robust uncertainty assessment of the spatio-temporal transferability of glacier mass and energy balance models, *The Cryosphere*, 13, 469-489, <https://doi.org/10.5194/tc-13-469-2019>, 2019.

Galos, S. P. and Coauthors, 2017: Reanalysis of a 10-year record (2004-2013) of seasonal mass balances at Langenferner/Vedretta Lunga, Ortler Alps, Italy. *The Cryosphere*, 11, 1417 - 1439, doi:10.5194/tc-11-1417-2017. [10.5194/tc-11-1417-2017-supplement](https://doi.org/10.5194/tc-11-1417-2017-supplement).

Kronenberg, Marlene; Schauwecker, Simone; Huggel, Christian; Salzmann, Nadine; Drenkhan, Fabian; Frey, Holger; Giraáldez, Claudia; Gurgiser, Wolfgang; Kaser, Georg; Juen, Irmgard et al. (2016): The Projected Precipitation Reduction over the Central Andes may Severely Affect Peruvian Glaciers and Hydropower Production. In: *Energy Procedia* 97, pp. 270 - 277.

Prinz, R., L. I. Nicholson, T. Mölg, W. Gurgiser, and G. Kaser, 2016: Climatic controls and climate proxy potential of Lewis Glacier, Mt. Kenya. *The Cryosphere*, 10, 133 - 148, doi:10.5194/tc-10-133-2016.

Kuhn, M., Helfricht, K., Ortner, M., Landmann, J., & Gurgiser, W. (2016). Liquid water storage in snow and ice in 86 Eastern Alpine basins and its changes from 1970-97 to 1998-2006. *Annals of Glaciology*, 57(72), 11-18. doi:10.1017/aog.2016.24



Gurgiser, W., I. Juen, K. Singer, M. Neuburger, S. Schauwecker, M. Hofer, and G. Kaser, 2015: Comparing peasants' perceptions of precipitation change with precipitation records in the tropical Callejón de Huaylas, Peru. *Earth System Dynamics Discussions*, 6, 1863 - 1896, doi:10.5194/esdd-6-1863-2015.

Maussion, F., W. Gurgiser, M. Großhauser, G. Kaser, and B. Marzeion, 2015: ENSO influence on surface energy and mass balance at Shallap Glacier, Cordillera Blanca, Peru. *The Cryosphere*, 9, 1663 - 1683, doi:10.5194/tc-9-1663-2015.

Gurgiser, W., T. Mölg, L. I. Nicholson, and G. Kaser, 2013: Mass balance model parameter transferability on a tropical glacier. *Journal of Glaciology*, 59, 845 - 858, doi:10.3189/2013JoG12J226.

Gurgiser, W., B. Marzeion, L. I. Nicholson, M. Ortner, and G. Kaser, 2013: Modeling energy and mass balance of Shallap Glacier, Peru. *The Cryosphere*, 7, 1787 - 1802, doi:10.5194/tc-7-1787-2013.

Klaus Schäfer, Friedrich Obleitner, Maria Hoffmann, Julia Wittig, Baptiste Ruille, Stefan Emeis, Peter Suppan, Wolfgang Gurgiser, Florian Bilgeri: Comparative study of wintertime NO and NO₂ measured by DOAS near a motorway in the Inn Valley. *Proceedings of SPIE - The International Society for Optical Engineering* 10/2008; DOI:10.1117/12.800343

Other Publications

Peters, Mike; Abegg, Bruno; Gurgiser, Wolfgang; Mailer, Markus; Pikkemaat, Birgit; Schermer, Markus; Steiger, Robert; Stotten, Rike; Tischler, Stephan: *Bleibt alles anders? Tourismus 2025*. Bundesministerium für Wissenschaft, Forschung und Wirtschaft (BWF), Wien, 15.04.2017.

NEUBURGER, M. & KASER, G. & BREGULLA, D. & GURGISER, W. (2012): Peasant Vulnerability, Glacier Mass Decline and Water Availability: Case Study Concerning the Effects of Changing Runoff Regimes in the Cordillera Blanca, Peru. In: SANDNER LE GALL, V. & WEHRHAHN, R. (Hrsg.): *Geographies of Inequality in Latin America*. Kieler Geographische Schriften, 123. Kiel, S. 77-93.

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