

Academic Curriculum Vitae

[4 November 2024]

Personal Information

Dr. Martin Loidl, MSc MSc BSc
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Research Interests

As a trained geographer, my research revolves around spatial aspects of human mobility. In this context, I am particularly interested in the digital representation of the mobility system, as well as in integrating domain knowledge from different fields (such as health, planning, transport engineering, psychology etc.) for a better understanding of the interdependencies between the physical and social environment on the one and mobility behaviour and patterns on the other side.

Education

- III 2017 PhD in Applied Geoinformatics (University of Salzburg)
“Spatial Information and Bicycling Safety” – passed with distinction
Supervisors: Univ. Prof. Dr. Josef Strobl & Dr. Stefan Krampe
- XI 2009 MSc in Landscape-, Regional- and Urban-Management (University of Salzburg)
“Development of an integrated workflow for assessing the aesthetic quality of urban landscapes” – passed with distinction
Supervisor: Univ. Prof. Dr. Andreas Koch
- IX 2009 MSc in Applied Geoinformatics (University of Salzburg)
“Development of a bicycle routing application for an urban environment” – passed with distinction
Supervisor: Prof. Dr. Josef Strobl
- X 2006 BSc in Geography (University of Salzburg)
Electives in ecology

Professional Appointments

- Since 2017 PostDoc Researcher
University of Salzburg, Department of Geoinformatics
Head of research group Mobility Lab
- Since 2019 Responsible coordinator for electives
University of Salzburg, Department of Geoinformatics
UNIGIS study program
- 2012 – 2017 Researcher
University of Salzburg, Department of Geoinformatics
Research group Mobility Lab
- 2009 – 2016 Tutor and lecturer
University of Salzburg, Department of Geoinformatics
UNIGIS Professional study program
- 2008 – 2009 GIS Analyst
Regioplan Ingenieure GmbH Salzburg

Publications

Peer reviewed journal articles

- Werner, C., Wendel, R., Kaziyeva, D., Stutz, P., van der Meer, L., Effertz, L., Zagel, B., Loidl, M. (2024). NetAScore: An open and extendible software for segment-scale bikeability and walkability. *Environment and Planning B: Urban Analytics and City Science*, 23998083241293177. <https://doi.org/10.1177/23998083241293177>
- Werner, C., van der Meer, L., Kaziyeva, D., Stutz, P., Wendel, R., & Loidl, M. (2024). Bikeability of road segments: An open, adjustable and extendible model. *Journal of Cycling and Micromobility Research*, 2, 100040. <https://doi.org/10.1016/j.jcmr.2024.100040>
- van der Meer, L., Werner, C., & Loidl, M. (2024). Assessment of bicycle accessibility to mobility hubs under different criteria for cycling network quality. *AGILE GIScience Ser.*, 5, 48. <https://doi.org/10.5194/agile-giss-5-48-2024>
- Kaziyeva, D., Stutz, P., Wallentin, G. & Loidl, M. (2023). Large-scale agent-based simulation model of pedestrian traffic flows. *Computers, Environment and Urban Systems* 105 (102021). <https://doi.org/10.1016/j.compenvurbsys.2023.102021>
- Loidl, M., Kaziyeva, D., Wendel, R., Luger-Bazinger, C., Seeber, M. & Stamatopoulos, C. (2023). Unlocking the Potential of Digital, Situation-Aware Nudging for Promoting Sustainable Mobility. *Sustainability* 15(14). <https://doi.org/10.3390/su151411149>
- Kaziyeva, D., Stutz, P., Wallentin, G. & Loidl, M. 2023. Agent-based simulation model of cyclists and pedestrians at a regional scale. *AGILE GIScience Ser.*, 4, 30. <https://doi.org/10.5194/agile-giss-4-30-2023>
- Werner, C., Füssl, E., Rieß, J., Resch, B., Kratochwil, F. & Loidl, M. (2022). A Framework to Facilitate Advanced Mixed Methods Studies for Investigating Interventions in Road Space for Cycling. *Sustainability*, 15. <https://doi.org/10.3390/su15010622>
- Werner, C., & Loidl, M. (2021). Bicycle Mobility Data: Current Use and Future Potential. An International Survey of Domain Professionals. *Data*, 6(11). <https://doi.org/10.3390/data6110121>
- Loidl, M. (2021). Datenverfügbarkeit für die räumliche Modellierung von Gefahrenbereichen im Straßenverkehr: Eine Untersuchung mittelgroßer Smart Cities in Europa. *AGIT: Journal für Angewandte Geoinformatik*, 7, 117-123. <https://doi.org/10.14627/537707014>
- Loidl, M., & Witzmann-Müller, U. (2021). Observing Cyclists' Mobility Patterns for better Decisions. *GI_Forum*, 9(1), 194-200. https://doi.org/10.1553/giscience2021_01_s194
- Kaziyeva, D., Loidl, M., & Wallentin, G. (2021). Simulating Spatio-Temporal Patterns of Bicycle Flows with an Agent-Based Model. *ISPRS International Journal of Geo-Information*, 10(2). <https://doi.org/10.3390/ijgi10020088>
- Loidl, M., Wagner, A., Kaziyeva, D., & Zagel, B. (2020). Bicycle Observatory – eine räumlich differenzierte, kontinuierliche Beobachtung der Fahrradmobilität. *AGIT: Journal für Angewandte Geoinformatik*, 6(6), 263-271. <https://doi.org/doi:10.14627/537698025>
- Schmied, C., Loidl, M., Rossi, V., Fernandez La Puente de Battre, M. D., Reich, B., Niebauer, J., & Niederseer, D. (2020). Dose-response relationship of active commuting to work: Results of the GISMO Study. *Scandinavian Journal of Medicine and Science in Sports*, 30(S1), 50-58. <https://doi.org/10.1111/sms.13631>
- Reich, B., Niederseer, D., Loidl, M., Fernandez La Puente de Batre, M. D., Rossi, V. A., Zagel, B., Caselli, S., Schmied, C., & Niebauer, J. (2020). Effects of active commuting on cardiovascular risk factors: GISMO a randomized controlled feasibility study. *Scandinavian Journal of Medicine and Science in Sports*, 30(S1), 15-23. <https://doi.org/10.1111/sms.13697>
- Neumeier, L. M., Loidl, M., Reich, B., Fernandez La Puente de Battre, M. D., Kissel, C. K., Templin, C., Schmied, C., Niebauer, J., & Niederseer, D. (2020). Effects of active commuting on health-related quality of life and sickness related absence.

- Scandinavian Journal of Medicine and Science in Sports, 30(S1), 31-40.
<https://doi.org/10.1111/sms.13667>
- Sareban, M., Dolores Fernandez La Puente de Batre, M., Reich, B., Schmied, C., Loidl, M., Niederseer, D., & Niebauer, J. (2020). Effects of active commuting to work for 12 months on cardiovascular risk factors and body composition. *Scandinavian Journal of Medicine and Science in Sports*, 30(S1), 24-30.
<https://doi.org/10.1111/sms.13695>
- Loidl, M., Stutz, P., Fernandez La Puente de Batre, M. D., Schmied, C., Reich, B., Bohm, P., Sedlacek, N., Niebauer, J., & Niederseer, D. (2020). Merging self-reported with technically sensed data for tracking mobility behavior in a naturalistic intervention study. Insights from the GISMO study. *Scandinavian Journal of Medicine and Science in Sports*, 30(S1), 41-49. <https://doi.org/10.1111/sms.13636>
- Fernandez La Puente de Batre, M. D., Moritz Neumeier, L., Ensslin, C., Loidl, M., Gräni, C., Schmied, C., Reich, B., Niebauer, J., & Niederseer, D. (2020). What it takes to recruit 77 subjects for a one-year study on active commuting. *Scandinavian Journal of Medicine and Science in Sports*, 30(6), 1090-1095.
<https://doi.org/10.1111/sms.13682>
- Loidl, M., Witzmann-Müller, U., & Zigel, B. (2019). A spatial framework for Planning station-based bike sharing systems. *European Transport Research Review*, 11(1).
<https://doi.org/10.1186/s12544-019-0347-7>
- Werner, C., Resch, B., & Loidl, M. (2019). Evaluating Urban Bicycle Infrastructures through Intersubjectivity of Stress Sensations Derived from Physiological Measurements. *ISPRS International Journal of Geo-Information*, 8(6).
<https://doi.org/10.3390/ijgi8060265>
- Niederseer, D., Schmied, C., Niebauer, J., & Loidl, M. (2019). GISMO - Geographical Information Support for Health Mobility - promoting active commuting as a novel option to counteract sedentary lifestyle. *Scandinavian Journal of Medicine and Science in Sports*. <https://doi.org/10.1111/sms.13533>
- Loidl, M., Werner, C., Heym, L., Kofler, P., & Innerebner, G. (2019). Lifestyles and Cycling Behavior—Data from a Cross-Sectional Study. *Data*, 4(4), 140.
<https://doi.org/10.3390/data4040140>
- Loidl, M. (2019). Spatial Information and Bicycling Safety. *gis.Science - Die Zeitschrift für Geoinformatik*, 2019(4), 133-140.
- Loidl, M., & Hochmair, H. (2018). Do Online Bicycle Routing Portals Adequately Address Prevalent Safety Concerns? *Safety*. <https://doi.org/10.3390/safety4010009>
- Wallentin, G., & Loidl, M. (2016). Bicycle-Bicycle Accidents Emerge from Encounters: An Agent-Based Approach. *Safety*, 2(2). <https://doi.org/10.3390/safety2020014>
- Loidl, M., Wallentin, G., Cyganski, R., Graser, A., Scholz, J., & Haslauer, E. (2016). GIS and Transport Modeling—Strengthening the Spatial Perspective. *ISPRS International Journal of Geo-Information*. <https://doi.org/10.3390/ijgi5060084>
- Loidl, M., Wallentin, G., Wendel, R., & Zigel, B. (2016). Mapping Bicycle Crash Risk Patterns on the Local Scale. *Safety*, 2(3). <https://doi.org/10.3390/safety2030017>
- Loidl, M., Traun, C., & Wallentin, G. (2016). Spatial patterns and temporal dynamics of urban bicycle crashes-A case study from Salzburg (Austria). *Journal of Transport Geography*, 52, 38-50. <https://doi.org/10.1016/j.jtrangeo.2016.02.008>
- Loidl, M., Zigel, B., & Wendel, R. (2015). Implementation systematischer Qualitätssicherungs- und Modellierungsroutinen bei der Verwendung von GIP-Daten. *AGIT - Journal für Angewandte Geoinformatik*, 175-184.
- Loidl, M., & Zigel, B. (2014). Assessing bicycle safety in multiple networks with different data models. *GI_Forum*. <https://doi.org/10.1553/giscience2014s144>
- Loidl, M., & Traun, M. (2013). The effect of ACRC on the results of cartographic classification depending on spatial autocorrelation. *International Journal of Geoinformatics*, 9(2), 29-36. <https://doi.org/10.52939/ijg.v9i2.140>

- Traun, C., & Loidl, M. (2012). Autocorrelation-Based Regioclassification - a self-calibrating classification approach for choropleth maps explicitly considering spatial autocorrelation. *International Journal of Geographical Information Science*, 26(5), 923-939. <https://doi.org/10.1080/13658816.2011.614246>
- Sagl, G., Loidl, M., & Beinat, E. (2012). A Visual Analytics Approach for Extracting Spatio-Temporal Urban Mobility Information from Mobile Network Traffic. *ISPRS International Journal of Geo-Information*, 1(3), 256-271. <https://doi.org/10.3390/ijgi1030256>

Peer reviewed conference papers

- Van der Meer, L., Abad, L., Lovelace, R., Gilardi, A., & Loidl, M. (2024). Analyzing real-world geospatial networks in R for sustainable transport planning. *UseR! 2024*, Salzburg, Österreich.
- Van der Meer, L., Esterle, L., Sharmeen, F., Friis, G., Malm, S., Stelzmüller, C., Amaral, P., Leppen, G., Cools, M., & Loidl, M. (2024). The potential and challenges of digital twins for 15-minute cities. *Mobil.TUM 2024*, Munich, Bavaria, Germany.
- Werner, C. & Loidl, M. (2023). Betweenness Centrality in Spatial Networks: A Spatially Normalised Approach. In *Proceedings of 12th International Conference on Geographic Information Science (GIScience 2023)*, <https://doi.org/10.4230/LIPIcs.GIScience.2023.83>
- Van der Meer, L., Werner, C., & Loidl, M. (2023). Towards human-centric metrics of urban bikeability. *GIScience 2023*, Leeds, United Kingdom.
- Loidl, M., Werner, C., Füssl, E., Kratochwil, F. & Resch, B. (2023). A mixed methods approach for capturing interactions of cyclists with mobility space. *1st International Conference on Hybrid Societies*. Chemnitz, Germany.
- Luger-Bazinger, C., Marquez, R. M., Harms, C., Loidl, M., Kaziyeva, D., & Hornung-Prähauser, V. (2022). Ethics of digital, data-based nudges: The need for responsible innovation. In: *Proceedings of XXXIII ISPIM Innovation Conference*, Copenhagen, Denmark.
- Graser, A., Stutz, P., & Loidl, M. (2021). Tracks vs. Counters: Towards a Systematic Analysis of Spatiotemporal Factors Influencing Correlation. in S. Dodge (Ed.), *GIScience: Advancing Movement Data Science (AMD'21)*
- Loidl, M., Butzhammer, A., Castellazzi, B., Prinz, T., Wendel, R., & Zagel, B. (2018). Considering spatial determinants in promoting active, healthy commuting. *GI_Forum*. https://doi.org/10.1553/giscience2018_01_s162
- Zeile, P., Resch, B., Loidl, M., Petutschnig, A., & Dörrzapf, L. (2016). Urban Emotions and Cycling Experience – Enriching Traffic Planning for Cyclists with Human Sensor Data. *GI_Forum*. https://doi.org/10.1553/giscience2016_01_s204
- Wallentin, G., & Loidl, M. (2015). Agent-based bicycle traffic model for Salzburg City. *GI_Forum*.

Book chapters

- Loidl, M. (2020). Digital abstrahiert – räumliche Daten für die Mobilitätsforschung und Verkehrsplanung. in B. Zagel, & M. Loidl (Eds.), *Geo-IT in Mobilität und Verkehr: Geoinformatik als Grundlage für moderne Verkehrsplanung und Mobilitätsmanagement* (S. 33-51). Wichmann Verlag / VDE.
- Straub, M., Graser, A., Loidl, M., Zagel, B., & Witzmann-Müller, U. (2020). Effizient geteilt - räumliche Optimierung von Verleihsystemen. in B. Zagel, & M. Loidl (Eds.), *Geo-IT in Mobilität und Verkehr: Geoinformatik als Grundlage für moderne Verkehrsplanung und Mobilitätsmanagement* (S. 175-190). Wichmann Verlag / VDE.
- Loidl, M. (2016). Spatial information for safer bicycling. in *advances and new Trends in Environmental Informatics: Selected and Extended Contributions from the 28th*

International Conference on Informatics for Environmental Protection (S. 219-235). Springer Verlag. https://doi.org/10.1007/978-3-319-23455-7_12
 Sagl, G., Loidl, M., & Resch, B. (2013). Visuelle Analyse von Mobilfunkdaten zur Charakterisierung Urbaner Mobilität. in Geoinformationssysteme 2013 (S. 72-79). Wichmann Verlag / VDE.

Edited book

Zagel, B., & Loidl, M. (2020). Geo-IT in Mobilität und Verkehr: Geoinformatik als Grundlage für moderne Verkehrsplanung und Mobilitätsmanagement. Wichmann Verlag / VDE. <https://doi.org/10.14627/537682>

Research Grants

- 2024 – 2027 KlimaFIT (FFG No. FO999913927): 112,085 € (85% funding)
 Total project budget: 574,867 €
 Lead: TraffiCon GmbH
- 2024 – 2027 SAFARI (FFG No. FO999913576): 119,189 € (85% funding)
 Total project budget: 361,630 €
 Lead: Herry Consult GmbH
- 2023 – 2026 CITWIN (FFG No. FO999905451): 215,132 € (85% funding)
 Total project budget: 337,810 € (Austrian part in DUT project).
 Lead: University of Liège
- 2021 – 2024 DyMoN (FFG No. 886495): 153,500 € (85% funding)
 Total project budget: 580,000 € (Austrian part in JPI Europe project).
 Lead: Salzburg Research
- 2021 – 2023 EMP2EMP (FFG No. FO999887712): 78,000 € (60% funding)
 Total project budget: 426,000 €. Lead: triply GmbH
- 2021 – 2023 ActNow (FFG No. 884334): 56,500 € (60% funding)
 Total project budget: 847,000 €. Lead: netwiss OG
- 2020 – 2023 Bike2CAV (FFG No. 879632): 120,000 € (85% funding)
 Total project budget: 1,657,000 €. Lead: Salzburg Research
- 2020 – 2022 POSITIM (FFG No. 873353): 101,000 € (85% funding)
 Total project budget: 369,000 €. Lead: Spatial Service GmbH
- 2019 – 2022 SINUS (FFG No. 874070): 106,500 € (85% funding)
 Total project budget: 607,000 €. Lead: TraffiCon GmbH
- 2018 – 2020 BICYCLE OBSERVATORY (FFG No. 865176): 174,000 € (85% funding)
 Total project budget: 436,000 €. Lead: PLUS
- 2017 – 2021 UML Salzburg (FFG No. 859080): 82,000 € (85% funding)
 Total project budget: 1,878,000 €. Lead: SIR
- 2016 – 2018 GISMO (FFG No. 854974): 103,500 € (85% funding)
 Total project budget: 400,000 €. Lead: PLUS
- 2016 – 2018 FamoS (FFG No. 855034): 93,000 € (85% funding)
 Total project budget: 348,000 €. Lead: TU Graz
- 2015 – 2017 BIKEALYZE (FFG No. 849075): 53,000 € (80% funding)
 Total project budget: 405,000 €. Lead: Salzburg Research

**Contracted
Consulting,
Research &
Development**

2024	VISION: 37,537 € (subcontractor, total budget 78,750 €) Customer: con.sens verkehrsplanung zt gmbh, BMK
2023 – 2025	LMI-Sustain: 22,994 € (together with partners, total budget 115,161 €) Customer: BMK (FFG No. FO999909876)
2023 – 2024	Accessibility Analysis of Multi-modal Mobility Hubs: 13,550 € Customer: Research Studios Austria Forschungsgesellschaft mbH. Studio iSPACE
2023	TRoute - Routing für europäische Bahnverbindungen – Lösungskonzepte: 12,550 € Customer: Traivelling GmbH
2022 – 2024	VERA Verlagerungspotenzial von Radverkehrsanlagen: 64,946 € (together with partners, total budget 200,000 €) Customer: BMK (FFG No. FO999897371)
2022 – 2024	RADBEST Radverkehrsführung bei beengten Straßenverhältnissen: 51,838 € (together with partners, total budget 300,000 €) Customer: BMK (FFG No. FO999897379)
2022 – 2023	KOMOA Konzeptstudie für ein Mobility Observatory Austria: 114,307 € (together with partners, lead partner PLUS) Customer: BMK (FFG No. FO999894014)
2021 – 2022	Feasibility study pedestrian and cycling data Uppsala (scientific advisory): 5,775 € Customer: Koucky & Partners
2021 – 2022	Radreport Salzburg: 10,800 € Customer: Stadt Salzburg
2021 – 2022	On-Demand-Planungstool für öffentliche Mobilitätsangebote: 109,500 € Customer: triply GmbH
2020 – 2022	Räumliche Optimierung des Matchings für Carpooling: 113,100 € Customer: Carployee GmbH
2019	Standortoptimierung von Haltestellen: 12,500 € Customer: triply GmbH
2019	Co-Organisation Österreichischer Radgipfel: 13,000 € Customer: Stadt Graz
2018	Potenzialstudie Smart Locker: 4,960 € Customer: Salzburg AG
2018	Wissenschaftliche Begleitung Hauptradwegenetz Salzburg: 4,200 € Customer: con.sens GmbH
2018	Organisation Europäischer Radgipfel: 22,000 € Customer: Stadt Salzburg
2017	Wissenschaftliche Begleitung Radverkehrsstrategie: 10,560 € Customer: Stadt Salzburg

2016	BSS Salzburg – Netzdesign, Prozessbegleitung: 21,000 € Customer: Stadt Salzburg, Salzburg AG
2016	Potenzialanalyse Radverleihsystem Salzburg: 22,400 € Customer: Stadt Salzburg, Salzburg AG
2015	Radlkarte XL: 20,000 € Customer: Land Salzburg
2014	Radlkarte 2.0: 46,200 € Customer: Land Salzburg, Stadt Salzburg

Conference Presentations

VI 2024	“Estimating the effects of newly built or extended bicycle infrastructure – Results from an expert panel and a literature review.” VeloCity Ghent, Belgium
VI 2024	“Small nudges for changing mobility behaviour” Klimaaktiv Annual Conference Vienna, Austria
IV 2024	“VERA – Verlagerungspotenzial von Radverkehrsanlagen” Österreichischer Radgipfel (Austrian Cycling Summit) Wiener Neustadt, Austria
VII 2023	“Risk zones for cyclists at intersections” GI_Salzburg2023 Conference Salzburg, Austria
VII 2023	“Spatial aspects of bicycle promotion” GI_Salzburg2023 Conference Salzburg, Austria
III 2023	“A mixed methods approach for capturing interactions of cyclists with mobility space” 1 st International Conference on Hybrid Societies Chemnitz, Germany
IX 2022	“Where do bicyclists interact with other road users? Delineating potential risk zones in HD-maps.” International Cycling Safety Conference Dresden, Germany
VII 2022	“KOMOA – Feasibility Study for a Mobility Observatory Austria” GI_Salzburg2022 Conference Salzburg, Austria
VII 2022	“The multiple ROI of Active Mobility” GI_Salzburg2022 Conference Salzburg, Austria
VI 2022	“Optimizing active commuting routes as a mean of health promotion” 19th International Medical Geography Symposium Edinburgh, Scotland
VII 2021	“Datenverfügbarkeit für die räumliche Modellierung von Gefahrenbereichen im Straßenverkehr” AGIT Salzburg, Austria
VII 2021	“Observing cyclists’ mobility patterns for better decisions” 12 th International Symposium on Digital Earth ISDE12 Salzburg, Austria
VII 2021	“Data for Sustainable Mobility” 12 th International Symposium on Digital Earth ISDE12 Salzburg, Austria
XII 2019	“Untersuchung des Wittereinflusses auf den Radverkehr in der Stadt Salzburg” AHORN Bernau, Germany

- VI 2019 “Promoting active, healthy commuting”
VeloCity Dublin, Ireland
- VI 2019 “Looking at cycling mobility through geographical lenses”
VeloCity Dublin, Ireland
- VI 2019 “Bicycle Observatory: Multidimensional Monitoring of Cycling Mobility”
VeloCity Dublin, Ireland
- XI 2018 “GISMO – Supporting Healthy Commuting”
POLIS Conference Manchester, United Kingdom
- X 2018 “A very high-resolution bicycle flow model”
International Cycling Safety Conference Barcelona, Spain
- X 2018 “Pendelmobilität & Gesundheitsförderung - Das Projekt GISMO”
Walk-Space Conference Graz, Austria
- VI 2018 “Räumliche Information zur Modellierung von Radverkehrsflüssen”
GeoSummit Bern, Switzerland
- XII 2017 “Geography as melting pot for cross-domain bicycling research and promotion”
POLIS Conference Brussels, Belgium
- VI 2017 “The Spatial Perspective on Bicycling Research”
VeloCity Nijmegen, Netherlands
- VI 2017 “Geographical Information Support for Healthy Mobility – GISMO”
Walk-Space Conference Klagenfurt, Austria
- XI 2016 “Spatial information on bicycle crash risk for evidence-based interventions on the city-scale”
POLIS Conference Rotterdam, Netherlands
- XI 2016 “A review of current online bicycle routing portals and their potential role in promoting safer bicycling”
International Cycling Safety Conference Bologna, Italy
- VI 2016 “Open Government Daten (OGD) als Katalysator für innovative Informationsservices”
GeoSummit Bern, Switzerland
- XI 2015 “From Open Government Data (OGD) to a comprehensive bicycle routing portal”
POLIS Conference Brussels, Belgium
- IX 2015 “Spatial Analysis and Modelling of Bicycle Accidents and Safety Threats”
International Cycling Safety Conference Hannover, Germany
- VII 2015 “Die Qual der Wahl? - Worin sich OGD und OSM Daten für die Netzwerkmodellierung und -analyse unterscheiden”
AGIT OSM Spezialforum Salzburg, Austria
- VII 2015 “Implementation systematischer Qualitätssicherungs- und Modellierungsroutinen bei der Verwendung von GIP Daten”
AGIT Salzburg, Austria

- IV 2015 “An intrinsic approach for the detection and correction of attributive inconsistencies and semantic heterogeneity in OSM data”
AAG Annual Meeting Chicago, USA
- IX 2014 “How GIS can help to promote safe cycling”
EnviroInfo Oldenburg, Germany
- VII 2013 “Mapping your Mental Map”
ESRI Education Conference San Diego, USA
- VII 2013 “Radlkarte Salzburg. Das Radroutingportal für die Stadt Salzburg”
AGIT Salzburg, Austria
- VIII 2012 “The balance of value and space - Merging classification and regionalization to make more sense out of spatial data.”
36th Annual Conference of the German Classification Society (GfKl) on Data Analysis, Machine Learning and Knowledge Discovery Hildesheim, Germany
- VII 2011 “Transactional Map Symbols”
GI_Forum Salzburg, Austria
- VII 2010 “Wie sicher ist sicher? Innovatives Kostenmodell zur Ermittlung des Gefährdungspotentials auf Radwegen”
AGIT Salzburg, Austria
- VII 2008 “Berechnung und Animation der Durchflussqualität eines innerstädtischen Verkehrsnetzes mit ArcGIS 9.2”
AGIT Salzburg, Austria
- Invited Talks,
Lectures and
Seminars**
- X 2023 Science talk
“Health promotion and climate protection – effects of cycling promotion”
APB Tutzing, Germany
- VI 2023 Science talk
“Commuting by bike – what it brings and what it takes”
Integion Consulting Munich, Germany (online)
- V 2023 Keynote talk
“Return of investment of cycling promotion”
Radvernetzungstreffen Salzburg, Austria
- II 2023 Science talk
“Health effects related to mode choice”
ivm.um.neun Frankfurt, Germany (online)
- II 2023 Science talk
“Mobility and Health in a spatial context”
CIVIS Hub 4 meeting Salzburg, Austria
- XII 2022 Science talk
“Health promotion and climate protection – the double ROI of cycling promotion”
APB Tutzing, Germany
- XI 2022 Lightning talk
“The double ROI of cycling promotion: climate protection and health”

Cycling Competence Vienna, Austria

- V 2022 Science talk
“No time for sports! – Commuting trips as fitnesscenters?”
Lange Nacht der Forschung University of Salzburg, Austria
- XII 2021 Lecture in lecture series “CRC Hybrid Societies”
“Geographic coordinates as ‘primary key’ in mobility research”
Technical University Chemnitz, Germany
- XII 2021 Science talk
“Health promotion and climate protection – the double ROI of cycling promotion”
APB Tutzing, Germany
- V 2021 Short intensive course
“Cycling promotion – taking the next step”
Salzburg Institut für Raumordnung und Wohnen Salzburg, Austria
- IX 2020 Workshop lecture
“Commuting trips as fitness centres“
mobility4work symposium Steyr, Austria
- V 2020 Lecture in lecture series “Active Mobility”
“Spatial data for gaining a better understanding of cycling mobility“
Technical University Vienna, Austria
- IX 2019 Workshop lecture
“Commuting trips as fitness centres“
Cross-border mobility in the alpine region symposium Dornbirn, Austria
- IX 2019 Workshop lecture
“Commuting trips as fitness centres“
AGFK academy Kitzbühel, Germany
- V 2019 Lecture
“Interdisciplinary research as contribution to promoting active and healthy commuting”
Annual meeting Austrian Society for Public Health Vienna, Austria
- X 2018 Lecture
“GIS connecting domains, research and teaching”
Geoinformation Day HSR Rapperswil, Switzerland
- IV 2018 Science talk
“Show me where you’re living and I’ll tell you how you travel”
Wissensdurst-Festival (Pint of Science) Salzburg, Austria
- IV 2018 Lecture at teacher training
“Workbench report GIS and mobility research”
University of Salzburg, Austria
- III 2018 Science talk
“Healthier by car alternatives”
Citizens action group Steyr, Austria
- XI 2017 Lecture

“Developing a tool for promoting healthy commuting”
Forschungs Forum Mobilität Vienna, Austria

IX 2017 Lecture at “Sommerakademie” (together with A. v. Dulmen, C. Hebenstreit)
“Traffic data and bicycle traffic modeling”
Technical University Graz, Austria

VI 2017 Lecture at Children’s University
“Mit dem Fahrrad zur Schule. Aber sicher!”
University of Salzburg, Austria

IV 2017 Lecture in lecture series “Active Mobility”
“Spatial information for safer bicycling”
Technical University Vienna, Austria

V 2016 Short intensive course
“Using GPS and GIS”
National park “Hohe Tauern”, Austria

V 2015 Short intensive course
“Using GPS and GIS”
National park “Hohe Tauern”, Austria

XII 2011 Short intensive course
“Fundamentals of Geographic Information Systems”
City administration Salzburg, Austria

Awards

IX 2023 Best Poster Award. GIScience 2023 Leeds, UK (main author: Lucas van der Meer)

III 2023 Best Paper Award. 1st International Conference on Hybrid Societies Chemnitz, Germany

IX 2018 VCÖ Mobilitätspreis, Verkehrsclub Österreich

VI 2016 Young Investigator Award at “NaWi Science Day”, University of Salzburg

IV 2015 Excellence in Teaching Award, University of Salzburg

Scientific Advisory, Working Groups, University Committees, and Associations

Scientific advisory board

2024 ODTPR-SMS (ETH Zurich)
2021 – 2022 EFFECTS (Mobility of the Future BMK)
2019 – 2022 AMIGO (Interreg Alpenrhein – Bodensee – Hochrhein)

Committees

Since 2018 Review Board Transport Research Arena (TRA)
2022 – 2023 Review Committee 1st International Conference on Hybrid Societies
2023 Review Committee 9th International Conference on Computational Social Science

University committees

Since 2024 Deputy chair of CIVIS Hub 4 “Cities, spaces and mobilities”
Since 2022 Board (representative of academic mid-level faculty, “Mittelbau”) of Faculty for Digital and Analytical Sciences

Scientific working groups and associations

Since 2020 Interministerial working group “Sektorkopplung Gesundheit & Mobilität“

Since 2018 Scientists for Cycling, European Cycling Federation (ECF)
Since 2015 Cycling Competence Austria

Review Activities

Academic journal reviews

Accident Analysis and Prevention, Elsevier
AGIT Journal, Wichmann / VDE
Applied Geography, Elsevier
Applied Sciences, MDPI
Environment and Planning B: Urban Analytics and City Science, Sage Pub
Geographical Analysis, Wiley
GI_Forum Journal, Austrian Academy of Sciences Press
GIScience, Wichmann / VDE
International Journal of Geo-Information, MDPI
International Journal of Geographical Information Science, Taylor & Francis
International Journal of Sustainable Transportation, Taylor & Francis
JMIR Aging, JMIR Publications
Journal of Transport and Health, Elsevier
Journal of Transport Geography, Elsevier
Safety, MDPI
Scientific Data, Springer Nature
Scientific Reports, Springer Nature
Sensors, MDPI
Sustainability, MDPI
Transportation Engineering, Elsevier
Transportmetrica B: Transport Dynamics, Taylor & Francis
Urban, Planning and Transport Research, Taylor & Francis

Teaching Experience

Since 2011 Introduction to Geoinformatics (6 ECTS)
University of Salzburg, Department of Geoinformatics
Online course, UNIGIS study program

Since 2017 Contribution to lecture series GIScience (Spatial Information and Mobility
Research)
University of Salzburg, Department of Geoinformatics
Lecture, MSc Applied Geoinformatics

Since 2019 Coordination of elective course program (total 69 ECTS)
University of Salzburg, Department of Geoinformatics
Online course, UNIGIS study program

Since 2024 Sustainable Mobility (4 ECTS)
University of Salzburg, Cross-university teaching
Seminar

Since 2024 I3 Integrated Project (12 ECTS)
University of Salzburg, Department of Geoinformatics
Project lab course

2024 Healthy Urban Systems (6 ECTS)
University of Lausanne
CIVIS Blended Intensive Program (BIP)

2023 GIS and psychology meet for behavioural change in mobility (3 ECTS)
University of Salzburg, Department of Geoinformatics
International Summer School

- 2023 Ideas Lab Mobility Management (4 ECTS)
University of Salzburg, Cross-university teaching
Seminar
- 2011 – 2016 Thematic Cartography & Geovisualization (4 ECTS)
University of Salzburg, Department of Geography and Geology
Lab course, BSc Geography

Supervision

Phd

- 2023 L. van der Meer: “Happiness in the journey: recognizing the intrinsic value of mobility in the assessment of bicycle accessibility” (Co-Supervisor)
- 2021 C. Werner: “Integrated spatial assessment of sustainable intermodal mobility” (Co-Supervisor)
- 2018 D. Kaziyeva: “Advancing transport models using ABM and GIS” (Co-Supervisor)

MSc

- 2024 F. Lutterbeck: “Walkability in Berlin: An analysis of the 12 districts”
- 2024 M. Stobbelaar: “Cycling infrastructure assessment in Salzburg: Analyzing commute data to identify missing and insufficient bike infrastructure”
- 2023 S. Pusch: “Die Graphenintegrationsplattform GIP: Der digitale Verkehrsgraph der öffentlichen Hand in Österreich als Basis für ein LKW-Routing am Beispiel Oberösterreich”
- 2023 J. Bouchain: “Crossing streets between intersections - Including informal crossings into a pedestrian network graph with complete sidewalk geometries”
- 2022 E. Gaus: “What makes intersections hazardous for bicyclists? – A geospatial risk analysis”
- 2022 B. Giesendorf: “Ausbau der Ladeinfrastruktur für Elektromobilität in Städten – Eine räumliche Betrachtung zum Beitrag von privatwirtschaftlichen Unternehmen am Beispiel Köln und Düsseldorf“
- 2022 T. Stadelmann: “Agent-based bicycle traffic flow simulation for the Lucerne agglomeration “
- 2022 S. Roth: “Konnektivität der Radwegenetze und Radverkehrsanteil in deutschen Mittelstädten“
- 2020 C. Werner: “Quantification of cyclists' stress for assessing infrastructure suitability”
- 2020 M. Herbein: “Räumliche Variablen und sichere Radwege als Einflussfaktor auf die Wahl des Verkehrsmittels“
- 2019 J. Rugtvedt: “A Dynamic Scale Approach for Assessing Bikeability with Sensitivity for Different User Groups”
- 2019 P. Stutz: “Enhancing the validity of a long-term travel diary survey with GNSS-data to evaluate the dose of mobility for daily commuting”
- 2018 E. Westermeier: “Contextual Trajectory Modeling and Analysis”
- 2015 R. Wendel: “GIS-based Bicycle Transportation Planning: New Ways to Enhance Bicycle Safety” (Co-Supervisor)

BSc

- 2023 R. Kimanoglu: “From Parts to Functionality: An Analysis of the OpenBikeSensor Building Process”
- 2023 L. C. Effertz: “Sustainable Mobility - Auswirkung bestehender Mobilitätsangebote und deren Verfügbarkeit auf die Wahl des Verkehrsmittels im Universitären Umfeld“
- 2018 S. Schönamsgruber: “Zeitliche, saisonale und wetterbedingte Schwankung des Radfahrervolumens am Beispiel der Stadt Salzburg“

Languages and Skills

Language

German (native)

English (advanced – proficient)

Teaching skills

Classroom and lab courses

Blended and online teaching

Summer school

Organizational and communication skills

Project management: coordination of collaborative research projects

Internal organization: heading a research group, deputy research coordinator at department

Funding acquisition: proposal writing

Chairing: organization, chairing and moderation of workshops, panel discussions, paper sessions, scientific meetings

Public relations: writing press texts, interviews for print and broadcasting

Science communication: third mission activities for pupils and the general public

Technical skills

GIS software (proprietary and OpenSource, desktop, server, cloud)

Graphic software (Adobe Illustrator, Photoshop)

Web editing software (Adobe Dreamweaver)

CMS (Wordpress, Typo3)

BI software (Tableau)