

## CURRICULUM VITAE

February 2021

### MICHAEL LEITNER

Fred. B. Kniffen Professor  
Department of Geography and Anthropology  
E-104 Howe-Russell Complex  
Louisiana State University  
Baton Rouge, LA 70803  
Office: (225) 578-2963  
Fax: (225) 578-4420  
E-mail: mleitne@lsu.edu  
<http://ga.lsu.edu/faculty/michael-leitner/>

## EDUCATION

- 2019      **University of Vienna, Austria**  
Venia Docendi in Geoinformation and Cartography  
Habilitation Title: *The Geography of Crime: Spatial and Spatio-Temporal Analysis, Modeling, and Mapping of Crime Using Geographic Information Science and Technology.*
- 1997      **State University of New York (SUNY) at Buffalo**  
Ph.D. in Geography with emphases on GIS and Computer Cartography  
Title: *The Impact of Attribute Certainty Displays on Spatial Decision Support*  
Advisor: Dr. Barbara P. Buttenfield
- 1993      M.A. in Geography with emphases on GIS and Computer Cartography  
Title: *Prototype Rules for Automated Map Generalization*  
Advisor: Dr. Barbara P. Buttenfield
- 1990      **University of Vienna, Austria**  
M.A. in Geography with emphasis on Economic Geography (with Honors)  
Title: *The Determinants of the Regional Income Distribution in Austria*  
Advisor: Dr. Manfred M. Fischer
- 1987      B.A. in Geography (with Honors)  
1987      B.A. in Cartography (with Honors)

## ENDOWED PROFESSORSHIP

- 2020-present      **Louisiana State University, Baton Rouge**  
Fred B. Kniffen Professor

## HONORS

- 2007      **The Association of American Geographers**  
**2007 Meredith F. Burrill Award** (together with Mills J., Curtis A., Pine J., and B. Kennedy)

1994 **Department of Geography, State University of New York at Buffalo**  
Nomination for the **Excellence in Teaching Award**

## **BOOKS**

- 2022 Konsoer, K., Leitner, M., and L. Quinn (2022) *sUAS Applications in Geography*. Springer: Heidelberg (under contract).
- 2017 Leitner, M. and J.J. Arsanjani (eds.) (2017) *Citizen Empowered Mapping*. Springer: Heidelberg, 300 pages.
- 2015 Helbich, M., Arsanjani J.J., and M. Leitner (eds.) (2015) *Computational Approaches for Urban Environments*. Springer: Heidelberg, 395 pages.
- 2013 Leitner, M. (ed.) (2013) *Crime Modeling and Mapping Using Geospatial Technologies*. Springer: Heidelberg, 446 pages.
- 2008 Arden, W. and M. Leitner (2008) *The New Medical Geography of Public Health and Tropical Medicine: Case Studies from Brazil*. VDM Publishing: Saarbrücken, Germany, 166 pages.
- 2006 Curtis, A. and M. Leitner (2006) *Geographic Information Systems and Public Health: Eliminating Perinatal Disparity*. Idea Group Inc.: Hershey, PA, 317 pages.

## **CO-EDITED JOURNAL VOLUMES**

- 2020 Leitner, M. and A. Ristea (eds.) (2020) Urban Crime Mapping and Analysis using GIS. Special Issue of *ISPRS International Journal of Geo-Information*, 9 (9), 511.
- 2017 Helbich, M. and M. Leitner (eds.) (2017) Frontiers in Spatial and Spatiotemporal Crime Analytics. Special Issue of *ISPRS International Journal of Geo-Information*, 6 (3), 73.
- Arsanjani J.J., Leitner, M., and A. Zipf (eds.) (2017) Crowdsourced Mapping. Special Issue of *Cartography and Geographic Information Science*, 44 (2), 95-184.
- 2016 Lampoltshammer, T.J., Leitner, M., and N. Edelmänn (eds.) (2016) Open and Visual Access to Information. Special Issue of *E-Journal of E-Democracy and Open Government*, 8 (2), i-115.
- 2015 Leitner, M. & M. Helbich (eds.) (2015) Innovative Crime Modeling and Mapping. Special Issue of *Cartography and Geographic Information Science*, 42 (2), 95-209.
- 2014 Kounadi, O., Belgiu, M., and M. Leitner (eds.) (2014). Geographic Information Science: A Multi-Disciplinary and Multi-Paradigmatic Discipline. Special issue of *Cartography and Geographic Information Science*, 41 (3), 193-307.
- 2013 Tsou, M.-H. and M. Leitner (eds.) (2013) Mapping Cyberspace and Social Media. Special issue of *Cartography and Geographic Information Science*, 40 (2), 55-155.

- 2011 Lebeau, J. L. and M. Leitner (eds.). (2011) Spatial Methodologies for Studying Crime. Special issue of *The Professional Geographer*, 63 (2), 161-261.
- 2007 Leitner, M. and A. Skupin (eds.) (2007) Cartography 2007: Reflection, Status, and Prediction. 2007 U.S. National Report to the International Cartographic Association published as a special issue of *Cartography and Geographic Information Science*, 34 (2), 73-171.
- 2002 Weixlbaumer, N., Wohlschlägl, H., and M. Leitner (eds.) (2002) Forschungsberichte Auslandsösterreicher - junge Geographinnen und Geographen berichten. *Geographischer Jahresbericht aus Österreich*, Vol. 59.

## ENCYCLOPEDIA ENTRIES

- 2021 Leitner, M., Glasner, P., and R. Kounadi (2021) *Geographies of Crime*. The Encyclopedia of Research Methods and Statistical Techniques in Criminology and Criminal Justice. Wiley: Hoboken (accepted and forthcoming, approx. 2,000 words peer-reviewed entry).
- 2018 Leitner, M., Glasner, P., and R. Kounadi (2018) *Laws of Geography*. Oxford Research Encyclopedia of Criminology and Criminal Justice. Oxford University Press: Oxford (DOI: 10.1093/acrefore/9780190264079.013.325).
- 2010 Leitner, M. (2010) Flow Maps. In Warf, B. (Ed.) *Encyclopedia of Geography*, 1139-1140. Sage: Thousand Oaks, CA (doi:10.4135/9781412939591.n441).

## REFEREED JOURNAL ARTICLES

- 2021 Ristea, A., Leitner, M., Resch, B., and J. Stratmann (2021) Applying Spatial Video Geonarratives and Physiological Measurements to Explore Perceived Safety in Baton Rouge, Louisiana. *International Journal of Environmental Research and Public Health*, 18, 1284 (<https://doi.org/10.3390/ijerph18031284>).
- Soleimani, S., Leitner, M., and J. Codjoe (2021) Applying Machine Learning, Text Mining, and Spatial Analysis Techniques to Develop a Highway-Railroad Grade Crossing Consolidation Model. *Accident Analysis and Prevention*, 152 (105985), (<https://doi.org/10.1016/j.aap.2021.105985>).
- 2020 Kounadi, O., Ristea, A., Araujo, A., and M. Leitner (2020) A Systematic Review on Spatial Crime Forecasting. *Crime Science*, 9 (7) (<https://doi.org/10.1186/s40163-020-00116-7>).
- Ristea, A., Al Boni, M., Resch, B., Gerber, M.S., and M. Leitner (2020) Spatial Crime Distribution and Prediction for Sporting Events Using Social Media. *International Journal of Geographical Information Science*, 34 (9), 1708-1739 (<https://doi.org/10.1080/13658816.2020.1719495>).
- Oswald, L. and M. Leitner (2020) Evaluating Temporal Approximation Methods Using Burglary Data. *ISPRS International Journal of Geo-Information*, 9 (6) (<https://doi.org/10.3390/ijgi9060386>).

- 2019 Krauthausen, P., Leitner, M., Ristea, A., and A. Curtis (2019) Collecting and Analyzing Soccer-Related Graffiti with the Spatial Video Technology and GIS: A Case Study in Krakow, Poland. *Urban Development Issues*, 62, 61–73 (DOI: 10.2478/udi-2019-0010).
- Marchowski, D. and M. Leitner (2019) Conservation Implications of Extraordinary Greater Scaup *Aythya marila* Concentrations in the Odra Estuary, Poland. *The Condor: Ornithological Applications*, 121 (2), 1-10 (<https://doi.org/10.1093/condor/duz013>).
- Soleimani, S., Mousa, R. S., Codjoe, J., and M. Leitner (2019) A Comprehensive Railroad-Highway Grade Crossing Consolidation Model: A Machine Learning Approach. *Accident Analysis and Prevention*, 128, 65-77 (<https://doi.org/10.1016/j.aap.2019.04.002>).
- 2018 Dabrowski, A., Matczak, P., Wójtowicz, A., and M. Leitner (2018) Identification of Experimental and Control Areas for CCTV Effectiveness Assessment - The Issue of Spatially Aggregated Data. *ISPRS International Journal of Geo-Information*, 7 (471) (doi:10.3390/ijgi7120471).
- Glasner, P., Johnson, D.S., and M. Leitner (2018) A Comparative Analysis to Forecast Apartment Burglaries in Vienna, Austria, Based on Repeat and Near Repeat Victimization. *Crime Science*, 7 (9) (<https://doi.org/10.1186/s40163-018-0083-7>).
- Ristea, A., Andresen, M., and M. Leitner (2018) Using Tweets to Understand Changes in the Spatial Crime Distribution for Hockey Events in Vancouver. *The Canadian Geographer*, 62 (3), 338-351 (doi:10.1111/cag.12463).
- Ristea, A., Kurland, J., Resch, B., Leitner, M., and C. Langford (2018) Estimating the Spatial Distribution of Crime Events Around a Football Stadium from Georeferenced Tweets. *ISPRS International Journal of Geo-Information*, 7 (2) (doi:10.3390/ijgi7020043).
- Kounadi, O., Ristea, A., Leitner, M., and C. Langford (2018) Population at Risk: Using Areal Interpolation and Twitter Messages to Create Population Models for Burglaries and Robberies, *Cartography and Geographic Information Science*, 45 (3), 205-220 (doi:10.1080/15230406.2017.1304243).
- Strelnikova, D., Schneider, T, and M. Leitner (2018) Utilizing Spatial Video to Analyse Roadside Advertisements in Villach, Austria. *GI\_Forum 2018*, 1, 34-46 (doi:10.1553/giscience2018\_01\_s34)
- 2017 Schneider, C., Gröchenig, S., Venek, V., Leitner, M., and S. Reich (2017) A Framework for Evaluating Stay Detection Approaches. *ISPRS International Journal of Geo-Information*, 6 (315) (doi:10.3390/ijgi6100315).
- Sypion-Dutkowska, N. and M. Leitner (2017) Land Use Influencing the Spatial Distribution of Urban Crime: A Case Study of Szczecin, Poland. *ISPRS International Journal of Geo-Information*, 6 (74) (doi:10.3390/ijgi6030074).
- Glasner, P. and M. Leitner (2017) Evaluating the Impact the Weekday Has on Near-Repeat Victimization: A Spatio-Temporal Analysis of Street Robberies in the City of Vienna, Austria. *ISPRS International Journal of Geo-Information*, 6 (3) (doi:10.3390/ijgi6010003).
- 2016 Jia, P., Anderson, J.D., Leitner, M., & R. Rheingans (2016) Mapping Improved Sanitation Clustering: The Spatial Distribution of Improved Sanitation in Different Wealth Groups in Kenya. *PLOS ONE*, 11 (7) (doi:10.1371/journal.pone.0158490).

Kounadi O. & M. Leitner (2016) Adaptive Areal Elimination (AAE): A Transparent Way of Disclosing Protected Spatial Datasets. *Computers, Environment and Urban Systems*, 57, 59–67 (<https://doi.org/10.1016/j.compenvurbsys.2016.01.004>).

2015

Leitner, M., Lam, N. N. S., Wang, F., Wang, L., Meng, S., & J. Kent (2015) Geographic Information Science and Technology at Louisiana State University. *Cartography and Geographic Information Science*, 42 (sup1), S84–S90 (doi:10.1080/15230406.2015.1059255).

Leitner, M. & O. Kounadi (2015). Invited Commentary to “Mapping Fear of Crime as a Context-Dependent Everyday Experience that Varies in Space and Time.” *Legal and Criminological Psychology*, 20 (2), 218-221 (doi:10.1111/lcrp.12084).

Helbich, M., Leitner, M., & N. D. Kapusta (2015) Lithium in Drinking Water and Suicide Mortality: Interplay with Lithium Prescriptions. *The British Journal of Psychiatry*, 207 (1), 64-71 (doi:10.1192/bjp.bp.114.152991).

Kounadi O. & M. Leitner (2015). Defining a Threshold Value for Maximum Spatial Information Loss of Masked Geo-Data. *ISPRS International Journal of Geo-Information*, 4 (2), 572-590 (doi:10.3390/ijgi4020572).

Kounadi, O., Lampoltshammer, T. J., Groff, E., Sitko, I., & M. Leitner (2015). Exploring Twitter to Analyze the Public’s Reaction Patterns to Recently Reported Homicides in London. *PLOS ONE*, 10 (3) (doi: 10.1371/journal.pone.0121848).

Kounadi, O. & M. Leitner (2015) Spatial Information Divergence: Using Global and Local Indices to Compare Geographical Masks Applied to Crime Data. *Transactions in GIS*, 19 (5), 737-757 (doi:10.1111/tgis.12125).

Kounadi, O., Bowers, K., & M. Leitner (2015) Crime Mapping On-Line: Public Perception of Privacy Issues. *European Journal on Criminal Policy and Research*, 21 (1), 167-190 (doi:10.1007/s10610-014-9248-4).

Pharr, L., Leitner, M., & M. H. Manhein (2015) Comparing avian and terrestrial scavenging evidence and addressing why the Crested Caracara (*Caracara cheriway*) steals bones. *American Journal of Physical Anthropology*, 156, 252-252.

2014

Kounadi, O. & M. Leitner (2014). Why does geoprivacy matter? The scientific publications of confidential data presented on maps. *Journal of Empirical Research on Human Research Ethics*, 9 (4), 34-45 (doi:10.1177/1556264614544103).

2013

Helbich, M., Blüml, V., Leitner, M., & N. D. Kapusta (2013) Does Altitude Moderate the Impact of Lithium on Suicide? A Spatial Analysis of Austria. *Geospatial Health*, 7 (2), 209-218 (doi:10.4081/gh.2013.81).

Helbich, M., Hagenauer, J., Leitner, M., & R. Edwards (2013) Exploration of Unstructured Narrative Crime Reports: An Unsupervised Neural Network and Point Pattern Analysis Approach. *Cartography and Geographic Information Science*, 40 (4), 326-336 (doi:10.1080/15230406.2013.779780).

- Kounadi, R., Lampoltshammer, T. J., Leitner, M., & T. Heistracher (2013) Accuracy and Privacy Aspects in Free Online Reverse Geocoding Services. *Cartography and Geographic Information Science*, 40 (2), 140-153 (doi:10.1080/15230406.2013.777138).
- Helbich, M., Brunauer, W., Hagenauer, J., & M. Leitner (2013) Data-Driven Regionalization of Housing Markets. *Annals of the Association of American Geographers*, 103 (4), 871–889 (doi:10.1080/00045608.2012.707587).
- 2012 Helbich, M., Leitner, M., & N. D. Kapusta (2012) Geospatial Examination of Lithium in Drinking Water and Suicide Mortality. *International Journal of Health Geographics*, 11:19 (doi:10.1186/1476-072X-11-19).
- Kent, J. and M. Leitner (2012) Incorporating Land Cover within Bayesian Journey-to-Crime Estimation Models. *International Journal of Psychological Studies*, 4 (2), 120-140 (doi:10.5539/ijps.v4n2p120).
- 2011 Helbich, M., Hagenauer, J., and M. Leitner (2011) Raum-zeitliche Analyse von Verbrechenshotspots mittels Trajektorien und selbstorganisierenden Karten. *Mitteilungen der Österreichischen Geographischen Gesellschaft*, 153, 291-304 (doi:10.1553/moegg153s291).
- Leitner, M. and M. Helbich (2011) The Impact of Hurricanes on Crime: A Spatio-Temporal Analysis in the City of Houston, TX. *Cartography and Geographic Information Science*, 38 (2), 214-222 (doi:10.1559/15230406382213).
- LeBeau, J. L. and M. Leitner (2011) Progress in Research on the Geography of Crime. *The Professional Geographer*, 63 (2), 161-173 (doi:10.1080/00330124.2010.547147).
- Leitner, M., Barnett, M., Kent, J., and T. Barnett (2011) The Impact of Hurricane Katrina on Reported Crimes in Louisiana: A Spatial and Temporal Analysis. *The Professional Geographer*, 63 (2), 244-261 (doi:10.1080/00330124.2010.547156).
- 2010 Helbich, M. and M. Leitner (2010) Postsuburban Spatial Evolution of Vienna's Urban Fringes: Evidence from Point Process Modeling. *Urban Geography*, 31 (8), 1100-1117 (doi:10.2747/0272-3638.31.8.1100).
- 2009 Helbich, M. and M. Leitner (2009) Spatial Analysis of the Urban-to-Rural Migration Determinants in the Viennese Metropolitan Area. A Transition from Suburbia to Postsuburbia? *Applied Spatial Analysis and Policy*, 2 (3), 237-260 (doi:10.1007/s12061-009-9026-8).
- Kent, J. D. and M. Leitner (2009) Utilizing Land Cover Characteristics to Enhance Journey-to-Crime Estimation Models. Inaugural Issue of *Crime Mapping: A Journal of Research and Practice*, 1 (1), 33-54.
- Leitner, M. and J. Kent (2009) Bayesian Journey to Crime Modeling of Single- and Multiple Crime Type Series in Baltimore County, MD. *Journal of Investigative Psychology and Offender Profiling*, 6 (3), 213-236 (doi:10.1002/jip.109).
- 2007 Kent, J. and M. Leitner (2007) Efficacy of Standard Deviation Ellipses in the Application of Criminal Geographic Profiling. *Journal of Investigative Psychology and Offender Profiling*, 4 (3), 147-165 (doi:10.1002/jip.72).

Leitner, M., Kent, J., Oldfield, I., and E. Swoope (2007) Geoforensic Analysis Revisited - The Application of Newton's Geographic Profiling Method to Serial Burglaries in London, UK. *Police Practice and Research: An International Journal*, 8 (4), 359-370 (doi:10.1080/15614260701615060).

Curtis, A., Mills, J., and M. Leitner (2007) Katrina and Vulnerability: The Geography of Stress. *Journal of Health Care for the Poor and Underserved*, 18 (2), 315-330 (doi:10.1353/hpu.2007.0029).

Leitner, M. and H. Brecht (2007) Crime Analysis and Mapping with GeoDa 0.9.5-i. *Social Science Computer Review*, 25 (2), 265-271 (doi:0.1177/0894439307298921).

Leitner, M., Mills, J. and A. Curtis (2007) Can Novices to Geospatial Technology Compromise Spatial Confidentiality? *Kartographische Nachrichten*, 57 (2), 78-84.

Listi, G. A., Manhein, M. H., and M. Leitner (2007) Use of the Global Positioning System in the Field Recovery of Scattered Human Remains. *Journal of Forensic Sciences*, 52 (1), 11-15 (doi:10.1111/j.1556-4029.2006.00304.x).

Knowles, J. and M. Leitner (2007) Visual Representations of the Spatial Relationship Between Bermuda High Strengths and Hurricane Tracks. *Cartographic Perspectives*, 56, 37-51.

2006

Curtis, A., Mills J.W., and M. Leitner (2006) Re-engineering Confidential Information from Maps about Hurricane Katrina. *International Journal of Health Geographics*. 5:44 (doi:10.1186/1476-072X-5-44).

Leitner, M. and A. Curtis (2006) A First Step Towards a Framework for Presenting the Location of Confidential Point Data on Maps - Results of an Empirical Perceptual Study. *International Journal of Geographical Information Science*, 20 (7), 813-822 (doi:10.1080/13658810600711261).

Curtis, A., Mills, J., and M. Leitner (2006) Keeping an Eye on Privacy Issues with Geospatial Data. *Nature*, 441, 150 (doi:10.1038/441150d).

Fassmann, H. and M. Leitner (2006) New Orleans, "Katrina" and the Urban Impact of a Natural Disaster. *Geographische Rundschau (International Edition)*, 2 (2): 44-50.

Manhein, M., Listi, G. and M. Leitner (2006) The Application of Geographic Information Systems (GIS) and Spatial Analysis (SA) to Assess Dumped and Scattered Human Remains. *Journal of Forensic Sciences*, 51 (3), 469-474 (doi:10.1111/j.1556-4029.2006.00108.x).

Kent, J., Leitner, M. and A. Curtis (2006) Evaluating the Usefulness of Functional Distance Measures When Calibrating Journey-To-Crime Distance Decay Functions. *Computers, Environment and Urban Systems*, 30 (2), 181-200 (doi:10.1016/j.compenvurbsys.2004.10.002).

2004

Leitner, M. and A. Curtis (2004) Cartographic Guidelines for Geographically Masking the Location of Confidential Point Data. *Cartographic Perspectives*, 49, 22-39 (doi:10.14714/CP49.439)

- 2000 Leitner, M. and B. P. Buttenfield (2000) Guidelines for the Display of Attribute Certainty. *Cartography and Geographic Information Science*. 27 (1), 3-14 (doi:10.1559/152304000783548037).
- 1995 Leitner M. and B. P. Buttenfield (1995) Acquisition of Procedural Cartographic Knowledge by Reverse Engineering. *Cartography and Geographic Information Systems*, 22 (3), 232-241 (doi:10.1559/152304095782540320).

#### **REFEREED JOURNAL ARTICLES (UNDER REVIEW OR ACCEPTED)**

Sypion-Dutkowska, N., Dutkowski, M., and M. Leitner (2021) Impact of metropolization on crime in large cities (case study Poland), *Cities* (accepted with revisions).

Matczak P., Dąbrowski A., Wójtowicz A., Leitner M., and N. Sypion-Dutkowska (2021) Effectiveness and Durability of CCTV Systems as a Crime Preventive Tool: Evidence from Eight Polish Cities. *International Journal of Urban and Regional Studies* (under review).

Glasner, P., Leitner, M., and L. Oswald (2021) Estimating and Predicting the Temporal Information of Apartment Burglaries that Possess Imprecise Timestamps: A Comparative Study Using Eight Different Temporal Approximation Methods in Vienna, Austria. *PLOS ONE* (accepted with revisions).

#### **REFEREED CONFERENCE PROCEEDINGS**

- 2019 Soleimani, S., Mohammadi, A., Chen, J., and M. Leitner (2019) Mining the Highway-Rail Grade Crossing Crash Data: A Text Mining Approach, *18<sup>th</sup> IEEE International Conference on Machine Learning and Applications*, Boca Raton, FL, USA.
- 2018 Ristea, A., Leitner, M., and M.A. Andresen (2018) Opinion Mining from Twitter and Spatial Crime Distribution for Hockey Events in Vancouver. *The 21th AGILE International Conference on Geographic Information Science*. Lund, Sweden.
- Ristea, A., Kounadi, O., and M. Leitner (2018) Geosocial Media Data as Predictors in a GWR Application to Forecast Crime Hotspots. *10<sup>th</sup> International Conference on Geographic Information Science, GIScience 2018*, Melbourne, Australia.
- 2017 Ristea, A., Langford, C., and M. Leitner (2017) Relationships between Crime and Twitter Activity around Stadiums. *25<sup>th</sup> International Conference on Geoinformatics*. IEEE Explore®.
- 2015 Kocher, M. and M. Leitner (2015) Forecasting of Crime Events Applying Risk Terrain Modeling. *GI-Forum 2015*. Herbert Wichmann Verlag, Heidelberg.
- 2014 Glasner, P. and M. Leitner (2014) Evaluating the Impact the Weekday has on Near-Repeat Victimization: A Spatio-Temporal Analysis of Robberies in the City of Vienna, Austria. *AutoCarto 2014*, Pittsburgh, PA.
- 2013 Helbich, M., Arsanjani, J. J., and M. Leitner (2013) Driving Forces of Non-Violent Crime in Houston, TX: A Spatially Filtered Negative Binomial Model. *GI-Forum 2013*. Herbert Wichmann Verlag, Heidelberg.



- Leitner, M. and D. Guo (2013) Analyzing the Impact of One Important Unplanned Exceptional Event, Hurricanes, on Crime in Louisiana, U.S. Using a Visual Analytics Approach. *GI-Forum 2013*. Herbert Wichmann Verlag, Heidelberg.
- 2012 Lederer, D. and M. Leitner (2012) Erfassung der stadtteilspezifischen Kriminalitätsfurcht und Verortung von Kriminalitätsfurchträumen in Linz. *Applied Geographic Information Technology 2012*. Herbert Wichmann Verlag, Heidelberg.
- Helbich, M. and M. Leitner (2012) Evaluation of Spatial Cluster Detection Algorithms for Crime Locations. In Gaul W., Geyer-Schulz A., Schmidt-Thieme L. and J. Kunze (eds.): Challenges at the Interface of Data Analysis, Computer Science, and Optimization. *Studies in Classification, Data Analysis, and Knowledge Organization*. Springer: Berlin, pp. 193–201.
- 2011 Robin, C., Kopeinig, R., Leitner, M., Gaebler, K. and V.M. Garcia-Barrios (2011) Aerodrome Mapping Database: Entwurf und Modellierung eines Datenbanksystems für Flughäfen. *Applied Geographic Information Technology 2011*. Herbert Wichmann Verlag, Heidelberg.
- Robnik, M., Dörfel, G., Paulus, G., Gfrerer, W. and M. Leitner (2011) Automatisiertes Management von Geodaten und Projekten durch Scripting und visuelle Programmierung. *Applied Geographic Information Technology 2011*. Herbert Wichmann Verlag, Heidelberg.
- Kosar, B., Gröchenig, S., Leitner, M., Paulus, G., and S. Ward (2011) The Application of Geospatial Technology in Hazards and Disaster Research: Developing and Evaluating Spatial Recovery Indices to Assess Flood Hazard Zones and Community Resilience in Austrian Communities. *GI-Forum 2011*. Herbert Wichmann Verlag, Heidelberg.
- Helbich, M. and M. Leitner. 2011. Evaluation of Spatial Cluster Detection Algorithms for Crime Locations. In Gaul W, Geyer-Schulz A, Schmidt-Thieme L and Kunze J: *Studies in Classification, Data Analysis, and Knowledge Organization*. Springer, Heidelberg, Germany.
- 2010 Kulmesch, S., Leitner, M. and G. Paulus (2010) Konzeptionelle Überlegungen zur Einsetzbarkeit von HAZUS-MH in Österreich – Eine Fallstudie zur Abschätzung des Schadenspotentials bei Hochwasserfällen in Kärnten. *Applied Geographic Information Technology 2010*. Herbert Wichmann Verlag, Heidelberg, pp. 872-880.
- Jaklitsch, J., Leitner, M. and G. Koren (2010) Die Erreichbarkeit ausgewählter Versorgungseinrichtungen mit und ohne Berücksichtigung von räumlichen Grenzeffekten - Das Beispiel Klagenfurt Stadt. *Applied Geographic Information Technology 2010*. Herbert Wichmann Verlag, Heidelberg, pp. 494-503.
- Helbich, M. and M. Leitner (2010) Auswirkungen der Hurrikans Katrina und Rita auf raumzeitliche Kriminalitätscluster in Houston, TX. Ein Scan Statistik Ansatz. *Applied Geographic Information Technology 2010*. Herbert Wichmann Verlag, Heidelberg, pp. 50-59.
- Brunner, D., Egger, G. and M. Leitner (2010) Statistical Analysis for Discovering Distribution Patterns of Succession Types and Abiotic Factors Along Rivers. *GI-Forum 2010*. Herbert Wichmann Verlag, Heidelberg, pp. 26-35.
- 2009 Leitner, M. and M. Helbich (2009) Analyzing, Modeling, and Mapping the Impact of Hurricanes Katrina and Rita on the Spatial and Temporal Distribution of Crime in Houston, TX. *GI-Forum*. Herbert Wichmann Verlag, Heidelberg, pp. 110-119.

- 2002 Leitner, M. and P. Stauer-Steinnocher (2002) Spatio-temporal changes in the Vienna food retailing market. *Applied Geographic Information Technology XIV*. Herbert Wichmann Verlag, Heidelberg, pp. 308-317.
- 2001 Leitner, M. and P. Stauer-Steinnocher (2001) Kernel Density Estimation - An Innovative Exploratory Tool in Geomarketing. *Applied Geographic Information Technology XIII*. Herbert Wichmann Verlag, Heidelberg, pp. 297-308.
- Roder, I., Leymüller, M. and M. Leitner (2001) Geographische Analysemaschine (GAM) - Eine Sensitivitätsanalyse einer innovativen und explorativen Methode zur Identifikation räumlicher Punktcluster. *Applied Geographic Information Technology XIII*. pp. 400-411. Wichmann, Heidelberg.
- 1999 Leitner, M. (1999) Residential Patterns of Graduate Students and their Professors: An Application of *Hot Spot* and Spatial Association Techniques. *Applied Geographic Information Technology XI*, pp. 345-353. Wichmann, Heidelberg.

## REFERRED BOOK CHAPTERS

- 2020 Stratmann, J., Ristea, A., Leitner, M. and G. Paulus (2020) Exploring Urban “Blightscapes” Applying Spatial Video Technology and Geographic Information System: A Case Study from Baton Rouge, USA. In Kühne, O., Edler, D., and Jenal, C. (eds.): *Modern Approaches to the Visualization of Landscapes*. SpringerVS, Heidelberg, 497-515.
- Stratmann, J., Ristea, A., Leitner, M. and M.M. Leitner (2020) Können Indikatoren des Stadtverfalls Kriminalität vorhersagen? In Bode, F. and K. Seidensticker (eds.): *Predictive Policing - Eine Bestandsaufnahme für den deutschsprachigen Raum*. Verlag für Polizeiwissenschaft: Frankfurt am Main, pp. 79-98.
- 2012 Blaschke, T., Strobl, J., Schrott, L., Marschallinger, R., Neubauer, F., Koch, A., Beinat, E., Heistracher, T., Reich, S., Leitner, M., and K. Donert (2012) Geographic Information Science as a Common Cause for Interdisciplinary Research. In Gensel, J., Josselin, D. and D. Vandenbroucke (eds.): *Bridging the Geographic Information Sciences*. Lecture Notes 411 in Geoinformation and Cartography, Springer: Berlin, pp. 411-427.
- Helbich, M. and M. Leitner (2012) Evaluation of Spatial Cluster Detection Algorithms for Crime Locations. In Gaul W., Geyer-Schulz A., Schmidt-Thieme L. and J. Kunze (eds.): *Challenges at the Interface of Data Analysis, Computer Science, and Optimization*. Studies in Classification, Data Analysis, and Knowledge Organization. Springer: Berlin, pp. 193–201.
- 2009 Curtis, A., Mills, J., Pine, J., and M. Leitner (2009) Katrina and Vulnerability: The Geography of Stress. In Brennan, V.M. (Ed.) *Natural Disasters and Public Health: Hurricanes Katrina, Rita, and Wilma*. Baltimore, MD: Johns Hopkins University Press, pp. 101-116 (reprint of the 2007 article in *Journal of Health Care for the Poor and Underserved*).
- Ward, S.M., Leitner, M. and J. Pine (2009) Investigating Recovery Patterns in Post Disaster Urban Settings: Utilizing Spatial Technology to Understand Post-Hurricane Katrina Recover in New Orleans, Louisiana. In Showalter and Lu (Eds.) *Geospatial Techniques in Urban Hazard and Disaster Analysis*. Dordrecht, Heidelberg, London, and New York: Springer, pp. 355-372.

- 2007 Gamper, C., Heintel, M., Leitner, M. and N. Weixlbaumer (2007) Nature Parks and Regional Development in Austria: A Case Study of the Naturpark Ötscher-Tormäuer. In Mose, I. (ed.) *Protected Areas and Regional Development in Europe - Towards a New Model for the 21st Century?* Ashgate, Aldershot, UK, pp. 75-98.
- 2005 Cameron, J., Leitner, M., and R. Wilson (2005) Spatial Analysis Tools For Identifying Hot Spots. In Eck, J., Chainey, S.P., Cameron, J., Leitner, M., and R. Wilson (eds.) *Mapping Crime: Understanding Hotspots*. Washington DC: National Institute of Justice.
- 2002 Leitner, M. and A. Curtis (2002) Spatial Variation in Prenatal Risks Associated With Infant Mortality. In Wohlschlägl, H., Leitner, M., and N. Weixlbaumer (eds): *Geographischer Jahresbericht aus Österreich*, Vol. 59, pp. 45-57.
- Curtis, A., Leitner, M. and C. Hanlon (2002) Using Hierarchical Nearest Neighbor Analysis and Animation to Investigate the Spatial and Temporal Patterns of Raccoon Rabies in West Virginia. In Khan, O. A. (ed.): *Geographic Information Systems and Health Applications*. Idea Group Publishing, Hershey, PA, pp. 155-171.
- 2001 Fischer M.M, Leitner M. and P. Stauffer-Steinnocher (2001) Spatial Point Pattern Analysis - Some Useful Tools for Analysing Locational Data. In Department of Geography and Regional Research, University of Vienna (ed.): *Geographischer Jahresbericht aus Österreich*, Vol. 58, Department of Geography and Regional Research, Vienna, pp. 49-65.

#### CONFERENCE PROCEEDINGS (ABSTRACTS ARE REFEREED)

- 2012 Hagenauer, J., Helbich, M., Leitner, M., Ratcliffe, J., Chainey, S., and R. Edwards (2012) Data Mining of Collaboratively Collected Geographic Crime Information Using an Unsupervised Neural Network Approach. *AutoCarto 2012*, Columbus, Ohio.
- 2011 Hagenauer, J., Helbich, M. and M. Leitner (2011) Visualization of Crime Trajectories with Self-Organizing Maps: A Case Study on Evaluating the Impact of Hurricanes on Spatio-Temporal Crime Hotspots. *25<sup>th</sup> International Cartographic Conference*, Paris, France.
- Leitner, M., Paulus, G. and L. Couvillion (2011) Mapping Electricity Use in a Nationally Registered Historic District: The Spanish Town Neighborhood in the City of Baton Rouge, LA. *25<sup>th</sup> International Cartographic Conference*, Paris, France.
- Helbich, M., Hagenauer, J. & M. Leitner. 2011. Visualisierung von Verbrechensmustern in Houston mit Methoden des Data Minings. In Helbich M, Deierling, H., & A. Zipf: *Theorie und quantitative Methoden in der Geographie - Beiträge zum 19. Kolloquium (Heidelberger Geographische Bausteine)*, Heidelberg, Germany, pgs. 79-83.
- 2010 Leitner, M. and M. Helbich (2010) The Impact of Hurricanes on Crime in the City of Houston, TX: A Spatio-Temporal Analysis. *AutoCarto 2010*, Orlando, FL, November 15-19, 2010.
- Helbich, M. and M. Leitner (2010) Evaluation of Spatial Cluster Detection Algorithms for Crime Locations. *34th Annual Conference of the German Classification Society (GfKl) and International Symposium on the Data Analysis Interface*, Karlsruhe, Germany, July 21 -23, 2010.

- 2009 Ward, S., Leitner, M. and G. Paulus (2010) Utilizing GIS Technology in Hazards Research – Applying a Spatial Recovery Index to Assess Vulnerability and Community Resilience, Carinthia, Austria. *GI\_Forum '09*, Herbert Wichmann Verlag, Heidelberg, pp. 232-235.
- 2008 Kampitsch, K., Leitner, M. and H. Schabauer (2008) Der Einsatz von Geografischen Informationssystemen im österreichischen Bundeskriminalamt („The Application of Geographic Information Systems at the Austrian Criminal Intelligence Service“). *Applied Geographic Information Technology 2008*. Herbert Wichmann Verlag, Heidelberg, pp. 782-787.
- 2005 Leitner, M. (2005) Balancing “Individual Privacy” and “the Public’s Right to Know” or How to Properly Display the Location of Confidential Crime Data on Publicly Available Internet Sites. *Auto-Carto 2005*, Las Vegas, NV, March 21-23 2005.
- 2004 Car, A. and M. Leitner (2004) Recruiting Activities in Academia Aided by GIS. *Applied Geographic Information Technology XVI*. Herbert Wichmann Verlag, Heidelberg, pp. 67-72.
- Arthold, M., Leitner, M. and A. Curtis (2004) Local Spatial Variation of (Very) Low Birth Weight Infants and their Risk Factors. *Applied Geographic Information Technology XVI*. Herbert Wichmann Verlag, Heidelberg, pp. 29-34.
- 2003 Leitner M. and A. Curtis (2003) Cartographic Guidelines for the Visualization of Confidential Data Using Geographic Masking. *21<sup>st</sup> International Cartographic Conference*, Durban, SA, pp. 101-110.
- 2001 Seiringer, W., Meßner, H. and M. Leitner (2001) Die Nearest-Neighbor-Hierarchical-Clustering Technik – Eine attraktive Methode für die Identifizierung von räumlichen Hot Spots aus Punktdaten. *Applied Geographic Information Technology XIII*. pp. 449-454. Wichmann, Heidelberg.
- 2000 Leitner, M. and M.M. Fischer (2000) Investigating the Spatial and Temporal Relationship Between Income and Unemployment in Austria and its Nine States from 1967-1997. In: Abraham R.J. and B.H. Carlisle (eds.): *Proceedings of the 5<sup>th</sup> International Conference on GeoComputation*, University of Greenwich (UK), August, 23-25, 2000, GeoComputation CD-ROM. Manchester, UK.
- 1999 Schumacher B. J. and M. Leitner (1999) Spatial Crime Displacement Resulting from Large-Scale Urban Renewal Programs in the City of Baltimore, MD: A GIS Modeling Approach. In: Diaz, J., Tynes, R., Caldwell, D. and Ehlen, J. (eds.): *Proceedings of the 4<sup>th</sup> International Conference on GeoComputation*, Fredericksburg (VA), July, 25-28, 1999, GeoComputation CD-ROM. Greenwich, UK.
- 1998 Leitner M. and S. A. Binsalam (1998) The Application of Spatial Association Techniques Between Point Sets to Crime Analysis Systems. *Proceedings GIS/LIS*, Fort Worth, TX, Nov. 8-12: 600-610.
- Leitner M. (1998) Computer Mapping Techniques for the Visualization of Crime Data. *Applied Geographic Information Technology X*, pp. 202-208. Wichmann, Heidelberg.
- 1997 Leitner M. and B. P. Battenfield (1997) Cartographic Guidelines for Visualizing Attribute Accuracy. *Proceedings AUTO-CARTO 13*, Seattle, WA, April 8-10: 184-193.

- 1996 Leitner M. and B. P. Buttenfield (1996) The Impact of Data Quality Displays on Spatial Decision Support. *Proceedings GIS/LIS*, Denver, CO, November 19-21: 882-894.
- 1994 Leitner M. and B. P. Buttenfield (1994) Representation of Data Quality in the Digital Cartographic Process. In *Salzburger Geographische Materialien*, Heft 21, Salzburg: pp. 429-433.
- Leitner M. and B. P. Buttenfield (1994) Acquisition of Prototype Rules for Automated Map Generalization. In *Salzburger Geographische Materialien*, Heft 21, Salzburg: pp. 419-428.
- 1993 Leitner M. and B. P. Buttenfield (1993) The Dasymeric Technique. In *Salzburger Geographische Materialien*, Heft 20, Salzburg: pp. 89-96.
- Wieshofer M. and M. Leitner (1993) The Department of Geography at the State University of New York (SUNY) at Buffalo. In *Salzburger Geographische Materialien*, Heft 20, Salzburg: pp. 199-206.
- 1991 Buttenfield P. B., Weber R. C., Leitner M., Phelan J. J., Rasmussen D. M., and Wright G. R. (1991) How Does a Cartographic Object Behave? Computer Inventory of Topographic Maps. *Proceedings GIS/LIS*, Atlanta, Georgia, Oct 28 - Nov 1, Vol. 2: 891-900.

#### MISCELLANEOUS

- 2020 Ristea, A. and M. Leitner (2020) Urban Crime Mapping and Analysis Using GIS (editorial). *ISPRS International Journal of Geo-Information*, 9 (9) (<https://doi.org/10.3390/ijgi9090511>).
- 2017 Helbich, M. and M. Leitner (2017) Frontiers in Spatial and Spatiotemporal Crime Analytics - An Editorial. Special Issue of *ISPRS International Journal of Geo-Information*, 6 (3), 73 (doi:10.3390/ijgi6030073).
- Helbich, M. and M. Leitner (2017) Frontiers in Spatial and Spatiotemporal Crime Analytics - An Editorial. Special Issue of *ISPRS International Journal of Geo-Information*, 6 (3), 73, doi:10.3390/ijgi6030073.
- Leitner, M. and J.J. Arsanjani (2017) An introduction to Citizen Empowered Mapping. pgs. vii-x. In: Leitner, M. and J.J. Arsanjani (eds.) (2017) *Citizen Empowered Mapping*. Springer: Heidelberg.
- Arsanjani J.J., Leitner, M., and A. Zipf (eds.) (2017) Crowdsourced Mapping. Editorial. Special Issue of *Cartography and Geographic Information Science*, 44 (2), 95-97.
- 2016 Lampoltshammer, T.J., Leitner, M., and N. Edelmann (eds.) (2016) Open and Visual Access to Information. Editorial. Special Issue of *E-Journal of E-Democracy and Open Government*, 8 (2), i-iv.
- 2015 Helbich, M., Arsanjani, J.J. and M. Leitner (2015). Computational Approaches for Urban Environments: An Editorial, pgs. 1-9. In: Helbich, M., Arsanjani J.J., & M. Leitner (eds.) *Computational Approaches for Urban Environments*. Springer: Heidelberg.
- Leitner, M. & M. Helbich (2015) Editorial. Special Issue of *Cartography and Geographic Information Science* about Innovative Crime Modeling and Mapping, 42 (2), pgs. 95-96.

- 2014 Kounadi, O., Belgiu, M., and M. Leitner (2014). Introduction to “Geographic Information Science: A Multi-Disciplinary and Multi-Paradigmatic Discipline”. Editorial. Special issue of *Cartography and Geographic Information Science*, 41 (3), 193-195.
- 2013 Tsou, M.-H. and M. Leitner (2013) Visualization of Social Media: Seeing a Mirage or a Message? Editorial. Special Issue of *Cartography and Geographic Information Science*, 40 (2), pp. 55-60.
- Leitner, M. (2013). Editorial, pgs. v-ix. In: Leitner, M. (ed.) (2013) *Crime Modeling and Mapping Using Geospatial Technologies*. Springer: Heidelberg.
- 2012 Lederer, D. and M. Leitner (2012) GIS in Public Safety: A Focus on the Region of Latin America, SIG en Servicios Comunes (GIS and Public Services) [online via internal VLE] University San Francisco de Quito, Ecuador. Available at: <https://elearn.sbg.ac.at> [10.01.2013].
- 2010 Leitner, M. (2010) Editorial. *Cartography and Geographic Information Science*, 37 (2), pg. 91.
- 2009 Leitner, M. (2009) *CaGIS*: Five Special Focus Issues. *ICA News*, 52, pg. 18.
- 2009 Leitner, M. (2009) From the new Editor. *Cartography and Geographic Information Science*, 36 (2), p. 129.
- 2008 Leitner, M. (2008) Profiles: Cartography and GIScience. *ICA News*, 51, pg. 6.
- 2007 Leitner, M. and A. Skupin (2007) Preface. In Leitner, M. and A. Skupin (eds.) *Cartography 2007: Reflection, Status, and Prediction*. 2007 U.S. National Report to the International Cartographic Association to be published as a special issue of *Cartography and Geographic Information Science*, 34 (2), pp. 73-75.
- 2006 Leitner, M. (2006) Words from the Chair. *CSG Newsletter*, 26 (1), pp. 1-2.
- 2005 Eck, J., Chainey, S.P., Cameron, J., Leitner, M. and R. Wilson (eds.) (2005) *Mapping Crime: Understanding Hotspots*. Washington DC: National Institute of Justice, 72 pages.
- Leitner, M. (2005) Words from the Chair. *CSG Newsletter*, 25 (3), pp. 1-2.
- Leitner, M. (2005) Words from the Chair. *CSG Newsletter*, 25 (2), pp. 1-2.
- 2001 Benedikt, J., Gruber, D. and M. Leitner (2001) GIS. Einsatzmöglichkeiten von Geographischen Informationssystemen im Unterricht. Materialien zu Gesellschaft, Wirtschaft und Umwelt im Unterricht. *Kritische Geographie*, Heft 2/01, Vienna, Austria.
- 2000 Lorup, E. J. and M. Leitner (2000) *Geostatistics – Module 6*, UNIGIS MAS Distance Education Program in Geographical Information Science & Systems, Department of Geography and Applied Geoinformatics, Salzburg, Austria.