

PUBLIKATIONEN (publications)

Britta Schmalz (06/2025)

Begutachtete Publikationen (peer-reviewed publications)

2025

- Anh, N.T., Dan, N.H., **Schmalz, B.** & Luu, T.L. (2025): Coagulation/flocculation as a key unit in the decentralized surface water treatment systems in upland rural areas of Vietnam: results from a lab scale to a pilot scale system. *Process Safety and Environmental Protection* 194: 1194-1205. DOI: 10.1016/j.psep.2024.12.058. IF (2023) 6.9; Q1 (JIF 2023).
- Anh, N.T., Can, L.D., **Schmalz, B.** & Luu, T.L. (2025): Key factors affecting people's willingness to participate in water resource protection in the agricultural Ba River Basin – in the highlands of Vietnam. *Journal of Water and Climate Change*, accepted 03/2025. DOI: 10.2166/wcc.2025.103. IF (2023) 2.7; Q2 (JIF 2023).
- Dehghani Darmian, M. & **Schmalz, B.** (2025): Uncertainty Analysis in River Quality Management Considering Failure Probability: Controllable and Uncontrollable Input Pollutants. *Ecotoxicology and Environmental Safety* 289: 117698. DOI: 10.1016/j.ecoenv.2025.117698. IF (2023) 6.2; Q1 (JIF 2023).
- Grosser, P.F. & **Schmalz, B.** (2025): Assessing the Impacts of Climate Change on Hydrological Processes in a German Low Mountain Range Basin: Modelling Future Water Availability, Low Flows and Water Temperatures Using SWAT+. *Environments* 12(5), 151. DOI: 10.3390/environments12050151. IF (2023) 3.5; Q2 (JIF 2023).

2024

- Anh, N.T., Nhan, N.T., Tri, D.V., **Schmalz, B.** & Luu, T.L. (2024): Evaluating the spatiotemporal variation of Ba River water quality in the agricultural and urban watershed in the highland of Vietnam. *Water Environment Research* 96(8), e11100, 17 p. DOI: 10.1002/wer.11100. IF (2023) 2.5; Q2 (JIF 2023).
- Kissel, M., Bach, M. & **Schmalz, B.** (2024): Impact of model structure and calibration strategy on baseflow modeling in the German Low Mountain Range. *Journal of Hydroinformatics* 26(7): 1692-1714. DOI: 10.2166/hydro.2024.077. IF (2023) 2.2; Q3 (JIF 2023).
- Dehghani Darmian, M. & **Schmalz, B.** (2024): River quality management: Integrating uncertainty, failure probability, and assimilation capacity. *Ecological Informatics* 83, 102829. DOI: 10.1016/j.ecoinf.2024.102829. IF (2023) 5.8; Q1 (JIF 2023).
- Scholand, D. & **Schmalz, B.** (2024): Automated quantification of contouring as support practice for improved soil erosion estimation considering ridges. *International Soil and Water Conservation Research* 12 (2024): 761e774. DOI 10.1016/j.iswcr.2024.07.001. IF (2023) 7.3; Q1 (JIF 2023).
- Wei, X., Wang, G., Grosser, P. F. & **Schmalz, B.** (2024): Using explainable artificial intelligence (XAI) methods to understand the nonlinear relationship between the Three Gorges Dam and downstream flood. *Journal of Hydrology: Regional Studies* 53 (2024): 101776: DOI: 10.1016/j.ejrh.2024.101776. IF (2023) 4.7; Q1 (JIF 2023).
- Yang, W., Zhao, Z., Pan, L., Li, R., Wu, S., Hua, P., Wang, H., **Schmalz, B.**, Krebs, P. & Zhang, J. (2024): Integrated risk analysis for urban flooding under changing climates. *Results in Engineering* 24: 103243. DOI: 10.1016/j.rineng.2024.103243. IF (2023) 6.0; Q1 (JIF 2023).

2023

- Anh, N.T., Can, L.D., Nhan, N.T., **Schmalz, B.** & Luu, T.L. (2023): Influences of key factors on river water quality in urban and rural areas: A review. *Case Studies in Chemical and Environmental Engineering* 8: 100424, 12 p. DOI: 10.1016/j.cscee.2023.100424. CiteScore (2023): 9.2.
- D'Ambrosio, R., Longobardi, A. & **Schmalz, B.** (2023): SuDS as a climate change adaptation strategy: scenario-based analysis for an urban catchment in northern Italy. *Urban Climate* 51: 101596. DOI: 10.1016/j.uclim.2023.101596. IF (2023) 6.0; Q1 (JIF 2023).

- David, A., Ruiz Rodriguez, E. & **Schmalz, B.** (2023). Importance of catchment hydrological processes and calibration of hydrological-hydrodynamic rainfall-runoff models in small rural catchments. *Journal of Flood Risk Management*: e12901; 30 p. DOI: 10.1111/jfr3.12901. IF (2023) 3.0; Q2 (JIF 2023).
- Dehghani Darmian, M. & **Schmalz, B.** (2023): Application of genetic programming in presenting novel equations for longitudinal dispersion coefficient in natural streams considering rivers geometry - Implementation in assimilation capacity simulation. *Journal of Environmental Management* 340: 117985. DOI 10.1016/j.jenvman.2023.117985. IF (2023) 8.0; Q1 (JIF 2023).
- Grosser, P.F. & **Schmalz, B.** (2023): Projecting Hydroclimatic Extremes: Climate Change Impacts on Drought in a German Low Mountain Range Catchment. *Atmosphere* 14(8): 1203. DOI: 10.3390/atmos14081203. IF (2023) 2.5; Q3 (JIF 2023).
- Kissel, M., Bach, M. & **Schmalz, B.** (2023): Evaluation of baseflow modeling with BlueM.Sim for long-term hydrological studies in the German low mountain range of Hesse, Germany. *Hydrology* 10(12): 222. DOI: 10.3390/hydrology10120222. IF (2023) 3.1; Q2 (JIF 2023).
- Wei, X., Wang, G., **Schmalz, B.**, Hagan, D.F.T. & Duan, Z. (2023): Evaluate Transformer model and Self-Attention mechanism in the Yangtze River basin runoff prediction. *Journal of Hydrology: Regional Studies* 47, June 2023, 101438: 13 p. DOI: 10.1016/j.ejrh.2023.101438. IF (2023) 4.7; Q1 (JIF 2023).

2022

- Abdolazadeh, M. & **Schmalz, B.** (2022): Assessment of wavelet-SVR and wavelet-GP models in predicting the groundwater level using areal precipitation and consumption data. *Hydrological Sciences Journal* 67(7): 1026-1039. DOI: 10.1080/02626667.2022.2064755. IF (2022) 3.5.
- Grosser, P.F., Xia, Z., Alt, J., Ruppel, U. & Schmalz, B. (2022): Virtual field trips in hydrological field laboratories: The potential of virtual reality for conveying hydrological engineering content. *Education and Information Technologies* 28: 6977–7003. Published: 28.11.2022. DOI: 10.1007/s10639-022-11434-5. IF (2022) 5.5.
- Khazaeiathar, M., Hadizadeh, R., Fathollahzadeh Attar, N. & **Schmalz, B.** (2022): Daily Stream-flow Time Series Modeling by Using a Periodic Autoregressive Model (ARMA) Based on Fuzzy Clustering. *Water* 14(23): 3932. DOI: 10.3390/w14233932. IF (2022) 3.4.
- Liu, G., **Schmalz, B.**, Zhang, Q., Qi, S., Zhang, L. & Liu, S. (2022): Assessing effects of land use and land cover changes on hydrological processes and sediment yield in the Xunwu River watershed, Jiangxi Province, China. *Frontiers of Earth Science* 16: 819-833. DOI: 10.1007/s11707-021-0959-9. IF (2022): 2.0.
- Sun, X., Hörmann, G., **Schmalz, B.** & Fohrer, N. (2022): Effects of sampling strategy in rivers on load estimation for Nitrate-Nitrogen and total Phosphorus in a lowland agricultural area. *Water Research* 224: 119081. DOI 10.1016/j.watres.2022.119081. IF (2022) 12.8.

2021

- David, A. & **Schmalz, B.** (2021): A Systematic Analysis of the Interaction between Rain-on-Grid-Simulations and Spatial Resolution in 2D Hydrodynamic Modeling. *Water* 13(17): 2346. DOI: 10.3390/w13172346. IF (2021): 3.53.
- Grosser, P.F. & **Schmalz, B.** (2021): Low Flow and Drought in a German Low Mountain Range Basin. *Water* 13(3): 316, DOI: 10.3390/w13030316. IF (2021): 3.53.
- Scholand, D. & **Schmalz, B.** (2021): Deriving the Main Cultivation Direction from Open Remote Sensing Data to Determine the Support Practice Measure Contouring. *Land* 10(11): 1279. DOI: 10.3390/land10111279. IF (2021) 3.905.

2020

- David, A. & **Schmalz, B.** (2020): Flood Hazard Analysis in Small Catchments: Comparison of Hydrological and Hydrodynamic Approaches by the Use of Direct Rainfall. *Journal of Flood Risk Management* 2020; 13:e12639: 26 p. DOI: 10.1111/jfr3.12639. IF (2020): 3.884.
- Kissel, M. & **Schmalz, B.** (2020): Comparison of baseflow separation methods in the German low mountain range. *Water* 12, 1740. DOI:10.3390/w12061740. IF (2020): 3.103.

2019

- Sada, R., **Schmalz, B.**, Kiesel, J. & Fohrer, N. (2019): Projected Changes in Climate and Hydrological Regimes of the Western Siberian Lowlands. *Environmental Earth Sciences* 78(2): 56. DOI: 10.1007/s12665-019-8047-0. IF (2019) 2.18.
- **Schmalz, B.** & Kruse, M. (2019): Impact of land use on stream water quality in the German low mountain range basin Gersprenz. *Landscape online* 72: 1-17. DOI: 10.3097/LO.201972.

2018

- Kiesel, J., Pfannerstill, M., **Schmalz, B.**, Khoroshavin, V., Sheludkov, A., Veshkurseva, T. & Fohrer, N. (2018): Modelling of hydrological processes in snowmelt-governed permafrost-free catchments of the Western Siberian Lowlands. *International Journal of Hydrology Science and Technology* 8(3): 289-316. DOI: 10.1504/IJHST.2018.10007182.
- Song, S., **Schmalz, B.**, & Fohrer, N. (2018): Improved structure of vertical flow velocity distribution in natural rivers based on mean vertical profile velocity and relative water depth. *Hydrology Research* 49(3): 878-892. DOI: 10.2166/nh.2017.258. IF (2018) 2.475.
- Wagner, P.D., Hörmann, G., **Schmalz, B.** & Fohrer, N. (2018): Charakterisierung des Wasser- und Nährstoffhaushalts im ländlichen Tieflandeinzugsgebiet der Kielstau. *Hydrologie und Wasserbewirtschaftung* 62(3): 145-158. DOI: 10.5675/HyWa_2018,3_2. IF (2018) 0.625.

2017

- Song, S., **Schmalz, B.**, Xu, Y.P. & Fohrer, N. (2017): Seasonality of roughness - the indicator of annual river flow resistance condition in a lowland catchment. *Water Resources Management* 31(11): 3299-3312. DOI: 10.1007/s11269-017-1656-z. IF (2017) 2.644.
- Song, S., **Schmalz, B.**, Zhang, J.X. Li, G. & Fohrer, N. (2017): Application of modified Manning formula in the determination of vertical profile velocity in natural rivers. *Hydrology Research* 48(1): 133-146. DOI: 10.2166/nh.2016.131. IF (2017) 1.801.

2016

- **Schmalz, B.**, Kruse, M., Kiesel, J., Müller, F. & Fohrer, N. (2016): Water-related ecosystem services in Western Siberian lowland basins – Analysing and mapping spatial and seasonal effects on regulating services based on ecohydrological modelling results. *Ecological Indicators* 71: 55-65. DOI: 10.1016/j.ecolind.2016.06.050. IF (2016) 3.898.
- Strehmel, A., Jewett, A., Schuldt, R., **Schmalz, B.** & Fohrer, N. (2016): Field data-based implementation of land management and terraces on the catchment scale for an eco-hydrological modelling approach in the Three Gorges Region, China. *Agricultural Water Management* 175: 43-60. DOI: 10.1016/j.agwat.2015.10.007. IF (2016) 2.848.
- Strehmel, A., **Schmalz, B.** & Fohrer, N. (2016): Evaluation of land use, land management and soil conservation strategies to reduce non-point source pollution loads in the Three Gorges Region, China. *Environmental Management* 58(5): 906-921, DOI: 10.1007/s00267-016-0758-3. IF (2016) 1.878.

2015

- Kiesel, J., Schröder, M., Hering, D., **Schmalz, B.**, Hörmann, G., Jähnig, S.C. & Fohrer, N. (2015): A new model linking macroinvertebrate assemblages to habitat composition in rivers: development, sensitivity and univariate application. *Fundamental and Applied Limnology / Archiv für Hydrobiologie* 186(1-2): 117-133. DOI: 10.1127/fal/2015/0625. IF (2015) 0.786.
- Kuemmerlen, M., **Schmalz, B.**, Cai, Q., Haase, P., Fohrer, N. & Jähnig, S.C. (2015): An attack on two fronts: predicting how changes in land use and climate affect the distribution of stream macroinvertebrates. *Freshwater Biology* 60(7): 1443-1458. DOI: 10.1111/fwb.12580. IF (2015) 2.933.

- **Schmalz, B.**, Kuemmerlen, M., Kiesel, J., Cai, Q., Jähnig, S.C. & Fohrer, N. (2015): Impacts of land use changes on hydrological components and macroinvertebrate distributions in the Poyang lake area. *Ecohydrology* 8(6): 1119-1136. DOI: 10.1002/eco.1569. IF (2015) 2.138.
- **Schmalz, B.**, Zhang, Q., Kuemmerlen, M., Cai, Q., Jähnig, S.C. & Fohrer, N. (2015): Modelling spatial distribution of surface runoff and sediment yield in a Chinese river basin without continuous sediment monitoring. *Hydrological Sciences Journal* 60(5): 801-824. DOI: 10.1080/02626667.2014.967245. IF (2015) 2.182.
- Song, S., **Schmalz, B.** & Fohrer, N. (2015): Simulation, quantification and comparison of in-channel and floodplain sediment processes in a lowland area – A case study of the Upper Stör catchment in northern Germany. *Ecological Indicators* 57: 118-127. DOI: 10.1016/j.ecolind.2015.03.030. IF (2015) 3.190.

2014

- Kuemmerlen, M., **Schmalz, B.**, Guse, B., Cai, Q., Fohrer, N. & Jähnig, S.C. (2014): Integrating catchment properties in small scale species distribution models of stream macroinvertebrates. *Ecological Modelling* 277: 77-86. DOI: 10.1016/j.ecolmodel.2014.01.020. IF (2014) 2.321.
- Müller, E.N., Van Schaik, L., Blume, T., Bronstert, A., Carus, J., Fleckenstein, J.H., Fohrer, N., Geißler, K., Gerke, H.H., Graeff, T., Hesse, C., Hildebrandt, A., Hölker, F., Hunke, P., Körner, K., Lewandowski, J., Lohmann, D., Meinikmann, K., Schibalski, A., **Schmalz, B.**, Schröder, B. & Tietjen, B. (2014): Skalen, Schwerpunkte, Rückkopplungen und Herausforderungen der ökohydrologischen Forschung in Deutschland (Scales, topics, feedbacks and key challenges of ecohydrological research from a German perspective). *Hydrologie und Wasserbewirtschaftung* 58(4): 221-240. DOI: 10.5675/HyWa_2014,4_2. IF (2014) 0.486.
- Pott, C.A., Jadoski, S.O., **Schmalz, B.**, Hörmann, G. & Fohrer, N. (2014): Temporal variability of nitrogen and phosphorus concentrations in a German catchment: Water sampling implication. *Revista Brasileira de Engenharia Agrícola e Ambiental* 18(8): 811-818. DOI: 10.1590/1807-1929/agriambi.v18n08p811-818. IF (2014) IF 0.550.
- Song, S., **Schmalz, B.** & Fohrer, N. (2014): Simulation and comparison of stream power in-channel and on the floodplain in a German lowland area. *Journal of Hydrology and Hydromechanics* 62(2): 133-144. DOI: 10.2478/johh-2014-0018. IF (2014) 1.486.
- Wu, N., Huang, J.C., **Schmalz, B.** & Fohrer, N. (2014): Modeling daily chlorophyll a dynamics in a German lowland river using artificial neural networks and multiple linear regression approaches. *Limnology* 15(1): 47-56. DOI: 10.1007/s10201-013-0412-1. IF (2014) 1.117.
- Wu, N., **Schmalz, B.** & Fohrer, N. (2014): Study progress in riverine phytoplankton and its use as bio-indicator – a review. *Austin Journal of Hydrology* 1(1): 9 p.

2013

- Kiesel, J., **Schmalz, B.**, Brown, G.L. & Fohrer, N. (2013): Application of a hydrological-hydraulic modelling cascade in lowlands for investigating water and sediment fluxes in catchment, channel and reach. *Journal of Hydrology and Hydromechanics* 61(4): 334-346. DOI: 10.2478/johh-2013-0042. IF (2013) 1.231.

2012

- Fohrer, N. & **Schmalz, B.** (2012): Das UNESCO Ökohydrologie-Referenzprojekt Kielstau-Einzugsgebiet - nachhaltiges Wasserressourcenmanagement und Ausbildung im ländlichen Raum. *Hydrologie und Wasserbewirtschaftung* 56(4): 160-168. DOI: 10.5675/HyWa_2012,4_1. IF (2012) 0.605.
- Jähnig, S.C., Kuemmerlen, M., Kiesel, J., Domisch, S., Cai, Q., **Schmalz, B.** & Fohrer, N. (2012): Modelling of riverine ecosystems by integrating models: conceptual approach, a case study and research agenda. *Journal of Biogeography* 39(12): 2253-2263. DOI: 10.1111/jbi.12009. IF (2012) 4.863.

- Kolychalow, O., **Schmalz, B.**, Matthiessen, A., Ostendorp, G., Hippelein, M. & Fohrer, N. (2012): Pflanzenschutzmittelwirkstoffe und deren Metaboliten in privaten Trinkwasserbrunnen in Schleswig-Holstein. *Hydrologie und Wasserbewirtschaftung* 56(4): 193-202. DOI: 10.5675/HyWa_2012,4_4. IF (2012) 0.605.
- Kuemmerlen, M., Domisch, S., **Schmalz, B.**, Cai, Q., Fohrer, N., Jähnig, S.C. (2012): Integrierte Modellierung von aquatischen Ökosystemen in China: Arealbestimmung von Makrozoobenthos auf Einzugsgebietsebene. *Hydrologie und Wasserbewirtschaftung* 56(4): 185-192. DOI: 10.5675/HyWa_2012,4_3. IF (2012) 0.605.
- Lam, Q.D., **Schmalz, B.** & Fohrer, N. (2012): Assessing the spatial and temporal variations of water quality in lowland areas, Northern Germany. *Journal of Hydrology* 438-439: 137-147. DOI: 10.1016/j.jhydrol.2012.03.011. IF (2012) 2.964.
- **Schmalz, B.**, Kuemmerlen, M., Strehmel, A., Song, S., Cai, Q., Jähnig, S. & Fohrer, N. (2012): Integrierte Modellierung von aquatischen Ökosystemen in China: Ökohydrologie und Hydraulik. *Hydrologie und Wasserbewirtschaftung* 56(4): 169-184. DOI: 10.5675/HyWa_2012,4_2. IF (2012) 0.605.
- Song, S., **Schmalz, B.**, Hörmann, G. & Fohrer, N. (2012): Accuracy, reproducibility and sensitivity of acoustic Doppler technology for velocity and discharge measurements in medium-sized rivers. *Hydrological Sciences Journal* 57(8): 1626-1641. DOI: 10.1080/02626667.2012.727999. IF (2012) 1.541.
- Wu, N., **Schmalz, B.** & Fohrer, N. (2012): Development and testing of a phytoplankton index of biotic integrity (P-IBI) for a German lowland river. *Ecological Indicators* 13(1): 158-167. DOI: 10.1016/j.ecolind.2011.05.022. IF (2012) 2.890.

2011

- Lam, Q.D., **Schmalz, B.** & Fohrer, N. (2011): The impact of agricultural Best Management Practices on water quality in a North German lowland catchment. *Environmental Monitoring and Assessment* 183(1): 351-379. DOI: 10.1007/s10661-011-1926-9. IF (2011) 1.400.
- Wu, N., **Schmalz, B.** & Fohrer, N. (2011): A comparison of phytoplankton assemblages generated by two sampling protocols in a German lowland catchment. *Annales de Limnologie - International Journal of Limnology* 47(4): 313-323. DOI: 10.1051/limn/2011045. IF (2011) 0.93.
- Wu, N., **Schmalz, B.** & Fohrer, N. (2011): Distribution of phytoplankton in a German lowland river in relation to environmental factors. *Journal of Plankton Research* 33(5): 807-820. DOI: 10.1093/plankt/fbq139. IF (2011) 2.079.

2010

- Kiesel, J., Fohrer, N. & **Schmalz, B.** (2010): Considering aquatic habitat properties in integrated river basin management - an ecohydrological modelling approach. *IAHS Publications* 338: 137-139.
- Kiesel, J., Fohrer, N., **Schmalz, B.** & White, M.J. (2010): Incorporating landscape depressions and tile drainages of a northern German lowland catchment into a semi-distributed model. *Hydrological Processes* 24(11): 1472-1486. DOI: 10.1002/hyp.7607. IF (2010) 2.068.
- Lam, Q.D., **Schmalz, B.** & Fohrer, N. (2010): Modelling point and diffuse source pollution of nitrate in a rural lowland catchment using the SWAT model. *Agricultural Water Management* 97(2): 317-325. DOI: 10.1016/j.agwat.2009.10.004. IF (2010) 1.782
- **Schmalz, B.** & Fohrer, N. (2010): Ecohydrological research in the German lowland catchment Kielstau. *IAHS Publications* 336: 115-120.
- Schumann, S., **Schmalz, B.**, Meesenburg, H. & Schröder, U. (2010): Status and perspectives of hydrology in small basins. *IHP/HWRP-Berichte H. 10*, Koblenz: 69 p.

2009

- Kiesel, J., Hering, D., **Schmalz, B.** & Fohrer, N. (2009): A transdisciplinary approach for modelling macroinvertebrate habitats in lowland streams. IAHS Publications 328: 24-33.
- Kiesel, J., **Schmalz, B.** & Fohrer, N. (2009): SEPAL – A simple GIS-based tool to estimate sediment pathways in lowland catchments. Advances in Geosciences 21: 25-32. DOI: 10.5194/adgeo-21-25-2009.
- Lam, Q.D., **Schmalz, B.** & Fohrer, N. (2009): Ecohydrological modelling of water discharge and nitrate loads in a mesoscale lowland catchment, Germany. Advances in Geosciences 21: 49-55. DOI: 10.5194/adgeo-21-49-2009.
- **Schmalz, B.** & Fohrer, N. (2009): Comparing model sensitivities of different landscapes using the ecohydrological SWAT model. Advances in Geosciences 21: 91-98. DOI: 10.5194/adgeo-21-91-2009.
- **Schmalz, B.** & Fohrer, N. (2009): Ecohydrological research in the Kielstau catchment. Landschaftsökologie und Umweltforschung Heft 50: 237-241.
- **Schmalz, B.**, Springer, P. & Fohrer, N. (2009): Variability of water quality in a riparian wetland with interacting shallow groundwater and surface water. Journal of Plant Nutrition and Soil Science 172(6): 757-768. DOI: 10.1002/jpln.200800268. IF (2009) 1.595.

2008

- Fohrer, N., Deunert, F. & **Schmalz, B.** (2008): Integration von landwirtschaftlichen Dränagen in die Abbildung des Landschaftswasser- und -stoffhaushalts von Tieflandeinzugsgebieten. DWA-Themen „Dränung - Nährstoffausträge, Flächenerfassung und Management“: 32-38.
- **Schmalz, B.**, Bieger, K. & Fohrer, N. (2008): A method to assess instream water quality – the role of nitrogen entries in a North German rural lowland catchment. Advances in Geosciences 18: 37-41. DOI: 10.5194/adgeo-18-37-2008.
- **Schmalz, B.**, Springer, P. & Fohrer, N. (2008): Interactions between near-surface groundwater and surface water in a drained riparian wetland. IAHS Publications 321: 21-29.
- **Schmalz, B.**, Tavares, F. & Fohrer, N. (2008): Modelling hydrological processes in mesoscale lowland river basins with SWAT — capabilities and challenges. Hydrological Sciences Journal 53(5): 989-1000. DOI: 10.1623/hysj.53.5.989. IF (2008) 1.216.

2007

- Fohrer, N., **Schmalz, B.** & Hörmann, G. (2007): Suitability of the eco-hydrological model SWAT for the assessment of water balance and quality in rural catchments. Progress in Hydro Sciences and Engineering. DKW-Series 3: 321-330.
- Fohrer, N., **Schmalz, B.**, Tavares, F. & Golon, J. (2007): Ansätze zur Integration von landwirtschaftlichen Drainagen in die Modellierung des Landschaftswasserhaushalts von mesoskaligen Tieflandeinzugsgebieten. Hydrologie und Wasserbewirtschaftung 51(4): 164-169.
- **Schmalz, B.**, Tavares, F. & Fohrer, N. (2007): Assessment of nutrient entry pathways and dominating hydrological processes in lowland catchments. Advances in Geosciences 11: 107-112. DOI: 10.5194/adgeo-11-107-2007.

2003

- **Schmalz, B.**, Lennartz, B. & Van Genuchten, M.Th. (2003): Analysis of unsaturated water flow in a large sand tank. Soil Science 168(1): 3-14. DOI: 10.1097/01.ss.0000049727.63732.8a. IF (2003) 1.044.

2002

- **Schmalz, B.**, Lennartz, B. & Wachsmuth, D. (2002): Analyses of soil water content variations and GPR attribute distributions. *Journal of Hydrology* 267(3-4): 217-226. DOI: 10.1016/S0022-1694(02)00152-X. IF (2002) 1.272.

Beiträge zu Handbüchern (book chapters)

2018

- Kiesel, J., Conrad, Y., Marciniak, H., Sheludkov, A., Abramenko, K., Conrad, M., Tretyakov, N., Veshkurseva, T., Khoroshavin, V., Tolstikov, A., **Schmalz, B.** & Fohrer, N. (2018): Water quality in Siberian lowland catchments – Measurement campaigns and assessment. Chapter II/94: 438-442. DOI: 10.25680/3313.2018.18.60.191. In: Sychev, V.G. & Mueller, L. (ed.) (2018): Novel methods and results of landscape research in Europe, Central Asia and Siberia. Monograph in 5 Volumes. Vol. II Understanding and Monitoring Processes in Soils and Water Bodies. Russian Academy of Sciences; FSBSI «All-Russian Research Institute of Agrochemistry. Moscow.
- Kiesel, J., Hering, D., Ceylan, M., Kuemmerlen, M., Jähnig, S., **Schmalz, B.** & Fohrer, N. (2018): Modelling freshwater habitats and their macroinvertebrate communities. Chapter III/63: 301-306. DOI: 10.25680/5045.2018.95.10.256. In: Sychev, V.G. & Mueller, L. (ed.) (2018): Novel methods and results of landscape research in Europe, Central Asia and Siberia. Monograph in 5 Volumes. Vol. III Landscape Monitoring and Modelling. Russian Academy of Sciences; FSBSI «All-Russian Research Institute of Agrochemistry. Moscow.

2016

- **Schmalz, B.** (2016): Tieflandhydrologie. Kapitel 18. In: Fohrer, N., Bormann, H., Miegel, K., Casper, M., Bronstert, A., Schumann, A. & Weiler, M. (Ed.): *Hydrologie*. 1. Auflage. UTB. 263-274. ISBN 978-3-8252-4513-9.

2015

- **Schmalz, B.**, Kandziora, M., Chetverikova, N., Müller, F. & Fohrer, N. (2015): Water-Related Ecosystem Services – The Case Study of Regulating Ecosystem Services in the Kielstau Basin, Germany. In: Chicharo, L., Müller, F. & Fohrer, N. (Eds.): *Ecosystem Services and River Basin Ecohydrology*. Springer. ISBN 978-94-017-9845-7. 215-232.

2012

- Bieger, K., Hörmann, G., **Schmalz, B.**, Cai, Q. & Fohrer, N. (2012): Diffuse Stoffeinträge im Einzugsgebiet des Drei-Schluchten-Staudamms - Modellierung der Auswirkungen des Landnutzungswandels auf Wassermenge und Wasserqualität mit dem ökohydrologischen Modell SWAT. In: Scholten, T. & Schönbrodt-Stitt, S. (Ed.): *Umweltforschung im Drei-Schluchten-Ökosystem in China*. Tübinger Geographische Studien Heft 151. Kapitel 7: 176-242. ISBN: 978-3-88121-089-8.
- Schönbrodt-Stitt, S., Behrens, T., Bieger, K., Ehret, D., Frei, M., Xia, Y., Hörmann, G., Seeber, C., Schleier, M., Bi, R., Wiegand, M., **Schmalz, B.**, Fohrer, N., Cai, Q., Kaufmann, H., King, L., Rohn, J., Subklew, G., Wei X., Shi, X. & Scholten, T. (2012): *Umweltforschung im Drei-Schluchten-Ökosystem in China – Eine Synthese*. In: Scholten, T. & Schönbrodt-Stitt, S. (Ed.): *Umweltforschung im Drei-Schluchten-Ökosystem in China*. Tübinger Geographische Studien Heft 151. Kapitel 9: 283-291. ISBN: 978-3-88121-089-8.

2011

- Volk, M., Fohrer, N., **Schmalz, B.** & Ullrich, A. (2011): Application of the SWAT model for ecohydrological modelling in Germany. In: Shukla, M. (ed.): *Soil Hydrology, Land Use and Agriculture*. Chapter 7. CABI, pp. 176-195. ISBN: 978-1-84593-797-3.

2010

- Fohrer, N. & **Schmalz, B.** (2010): Be- und Entwässerung von Böden. Kapitel 2.5. Seiten 228-241. In: Blume, H.-P., Horn, R., Thiele-Bruhn, S. (Hrsg.), Handbuch des Bodenschutzes, 4. vollständig überarbeitete Auflage. Wiley-VCH, Weinheim. 758 Seiten.

2008

- Lennartz, B., **Schmalz, B.**, Wachsmuth, D. & Stoffregen, H. (2008): Assessing spatial and temporal soil water content variations with GPR. Chapter 25. Handbook of Agricultural Geophysics. CRC Press. 323-335.

Herausgeberschaften und Vorworte (Editorials and Prefaces)

2019

- **Schmalz, B.**, Dietrich, S. & De Lima, J. L. M. P. (2019): Preface: Innovative monitoring techniques and modelling approaches for analysing hydrological processes in small basins. Advances in Geosciences 48: 49-51. DOI: 10.5194/adgeo-48-49-2019.

2018

- **Schmalz, B.**, Looser, U., Meesenburg, H. & Schröder, U. (2018): Ergebnisse aus kleinen hydrologischen Untersuchungsgebieten. Vorwort zum Themenheft "Ergebnisse aus kleinen hydrologischen Untersuchungsgebieten". Hydrologie und Wasserbewirtschaftung 62(3): 132-133.

2009

- **Schmalz, B.**, Bieger, K. & Fohrer, N. (2009): Preface "Transdisciplinary concepts and modelling strategies for the assessment of complex environmental systems – Proceedings of the 12th Workshop on Large-scale Hydrological Modelling". Advances in Geosciences 21: 1.

Weitere Informationen zu Tagungsbeiträgen, Posterpräsentationen und Vorträgen auf Anfrage.

Further information considering conference contributions, poster and oral presentations available on request.