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## EDUCATION

P.hD. in Civil Engineering , University of Stuttgart, Germany

M.Sc. in Water Resources Engineering and Management, University of Stuttgart, Germany.

B.Sc. in Civil Engineering , Addis Ababa University, Ethiopia

## PEER REVIEWED PUBLICATIONS

Gidhagen, L., Olsson, J., Amorim, J.H., Asker, C., Belusic, D., Carvalho, A.C., Engardt, M., Hundecha, Y., Körnich, H., Lind, P., Lindstedt, D., Olsson, E., Rosberg, J., Segersson, D., and Strömbäck, L. 2020: Towards climate services for European cities: Lessons learnt from the Copernicus project Urban SIS. *Urban Climate*, 31, 100549, doi:10.1016/j.uclim.2019.100549.

Parajka, J., Bezak, N., Burkhart, J., Hauksson, B., Holko, L., Hundecha, Y., Jenicek, M., Krajci, P., Mangini, W., Molnar, P., Riboust, P., Rizzi, J., Sensoy, A., Thirel, G., Viglione, A. 2019: MODIS snowline elevation changes during snowmelt runoff events in Europe. *Journal of Hydrology and Hydromechanics*, 67: 101-109, doi:10.2478/johh-2018-0011.

Ouarda, T.B.M.J., Charron, C., Hundecha, Y., St-Hilaire, A., Chebana, F. 2018: Introduction of the GAM model for regional low-flow frequency analysis at ungauged basins and comparison with commonly used approaches. *Environmenatl Modelling and Software*, 109: 256-271, doi: 10.1016/j.envsoft.2018.08.031.

Mangini, W., Viglione, A., Hall, J., Hundecha, Y., Ceola, S., Montanari, A., Rogger, M., Luis Salinas, J., Borzì, I., Parajka, J. 2018: Detection of trends in magnitude and frequency of flood peaks across Europe. *Hydrological Sciences Journal*, doi:10.1080/02626667.2018.1444766

Eisner, S., Flörke, M., Chamorro, A., Daggupati, P., Donnelly, C., Huang, J., Hundecha, Y., Koch, H., Kalugin, A., Krylenko, I., Mishra, V., Piniewski, M., Samaniego, L., Seidou, O., Wallner, M., and Krysanova, V. 2017: An ensemble analysis of climate change impacts on streamflow seasonality across 11 large river basins. *Climatic Change*, 141: 401- 417, doi:10.1007/s10584-016-1844-5

Huang, S., Kumar, R., Flörke, M., Yang, T., Hundecha, Y., Kraft, P., Gao, C., Gelfan, A., Liersch, S., Lobanova, A., Strauch, M., van Ogtrop, F., Reinhardt, J., Haberlandt, U., and Krysanova, V. 2017: Evaluation of an ensemble of regional hydrological models in 12 large-scale river basins worldwide. *Climatic Change*, 141:381-397, doi:10.1007/s10584-016-1841-8

Kuentz, A., Arheimer, B., Hundecha, Y., and Wagener, T. 2017: Understanding hydrologic variability across Europe through catchment classification. *Hydrology and Earth system sciences*, 21: 2863-2879, doi:10.5194/hess-21-2863-2017.

Pechlivanidis, I.G., Arheimer, B., Donnelly, C., Hundecha, Y., Huang, S., Aich, V., Samaniego, L., Eisner, S., and Shi, P. 2017: Analysis of hydrological extremes at different

- hydro-climatic regimes under present and future conditions. *Climatic Change*, 141:467-481, doi:10.1007/s10584-016-1723-0
- Falter, D., Dung, N.V., Vorogushyn, S., Schröter, K., Hundecha, Y., Kreibich, H., Apel, H., Theisselmann, F., and Merz, B. 2016: Continuous, large-scale simulation model for flood risk assessments: proof-of-concept. *Journal of Flood Risk Management*, 9: 3-21, doi:10.1111/jfr3.12105
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- Falter, D., Schroter, K., Dung, NV., Vorogushyn, S., Kreibich, H., Hundecha, Y., Apel, H., and Merz, B. 2015: Spatially coherent flood risk assessment based on long-term continuous simulation with a coupled model chain. *Journal of Hydrology*, 524: 182-193, doi:10.1016/j.jhydrol.2015.02.021
- Sunyer, M.A., Hundecha, Y., Lawrence, D., Madsen, H., Willems, P., Martinkova, M., Vormoor, K., Burger, G., Hanel, M., Kriauciuniene, J., Loukas, A., Osuch, M., and Yucel, I. 2015: Inter-comparison of statistical downscaling methods for projection of extreme precipitation in Europe. *Hydrology and Earth System sciences*, 19: 1827-1847, doi: 10.5194/hess-19-1827-2015
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- Nied, M., Hundecha, Y., and Merz, B. 2013: Flood-initiating catchment conditions: A spatio-temporal analysis of large-scale soil moisture patterns in the Elbe river basin. *Hydrology and Earth system sciences*, 17: 1401-1414.
- Hundecha, Y., and Merz, B. 2012: Exploring the relationship between changes in climate and floods using a model-based analysis. *Water Resources research*, 48, W04512, doi:10.1029/2011WR010527.
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- Hundeche, Y., Ouarda, T.B.M.J., and Bárdossy, A. 2008: Regional estimation of parameters of a rainfallrunoff model at ungauged catchments using ‘spatial’ structures of the parameters within a canonical physiographic-climatic space. *Water Resources Research*, 44, W01427, doi:10.1029/2006WR005439
- Hundeche, Y., St-Hilaire, A., Ouarda, T.B.M.J., El Adlouni, S., and Gachon, P. 2008. A non-stationary extreme value analysis for the assessment of changes in extreme annual wind speed over the Gulf of St. Lawrence, Canada. *Journal of Applied Meteorology and Climatology*, 47(11): 2745-2759, doi : 10.1175/2008JAMC1665.1
- Hundeche, Y., and Bárdossy, A. 2008: Statistical Downscaling of Extremes of Daily Precipitation and Temperature and Construction of their Future Scenarios. *International Journal of Climatology*, 28: 589610 , doi: 10.1002/joc.1563
- Schmidli, J., Goodess, C., Frei, C., Haylock, M., Hundeche, Y., Ribalaygua, J., and Schmith, T. 2007: Statistical and Dynamical Downscaling of Precipitation: An Evaluation, Intercomparison, and Scenarios for the European Alps. *Journal of Geophysical Research*, 112, D04105, doi:10.1029/2005JD007026.
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- Hundeche, Y., and Bárdossy, A. 2005: Trends in daily precipitation and temperature extremes across western Germany in the 2nd half of the 20th century. *International Journal of Climatology*, 25: 11891202.
- Hundeche, Y., and Bárdossy, A. 2004: Modelling of the effect of land use changes on the runoff generation of a river basin through parameter regionalization of a watershed model. *Journal of Hydrology*, 292: 281-295
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## **BOOK CHAPTERS AND NON-ISI PUBLICATIONS**

- Merz, B., Apel, H., Nguyen, D., Falter, D., Guse, B., Hundeche, Y., Kreibich, H., Schröter, K., and Vorogushyn S. 2018. From precipitation to damage: A coupled model chain for spatially coherent, large-scale flood risk assessment. –In: Schumann, Guy J-P., Bates, P.D., Apel, H., Aronica, G.T. (Eds.), *Global flood hazard: applications in modeling, mapping, and forecasting*, *Geophysical monographs*, 233:169-183.
- Merz, B., Apel, H., Dung, N.V., Falter, D., Hundeche, Y., Kreibich, H., Schröter, K., and Vorogushyn, S. 2016: Large-scale flood risk assessment using a coupled model chain. *E3S Web of Conferences*, 7, 11005, doi:10.1051/e3sconf/20160711005
- Merz, B., Kudzewicz, Z.W., Delgado, J., Hundeche, Y., and Kreibich, H. 2012: Detection and attribution of changes in flood hazard and risk. –In: Kundzewicz, Z.W. (Ed.), *Changes in Flood Risk in Europe*, CRC Press – 544 pp

Haberlandt, U., Hundecha, Y, Pahlow, M., and Schumann, A. 2011: Rainfall Generators for Application in Flood Studies. - In: Schumann, A. H. (Eds.), *Flood Risk Assessment and Management*, Springer, 117-147.

Hundecha, Y., Zehe, E., and Bárdossy, A. 2007: Regional parameter estimation from catchment properties for the prediction of ungauged basins. *Proceedings of the Kick-off workshop of the IAHS decade on Prediction of Ungauged Basins (PUB)*, Brasilia, Brasil