

Scientific Publications

Five most cited Articles, according to Web of Science (Nov. 2019):

Verthoeven, J.T.A., Arheimer, B., Yin, C., Hefting, M.M. 2006. Regional and global concerns over wetlands and water quality. *Trends in Ecology and Evolution* 21(2):96-103. **No citations: 385**

Hrachowitz, M. et al. 2013. A decade of Predictions in Ungauged Basins (PUB) - a review. *Hydrological Sciences Journal*, 58(6):1198-1255, DOI:10.1080/02626667.2013.803183 **No citations: 383**

Montanari, A. et al. 2013. "Panta Rhei – Everything Flows": Change in hydrology and society – The IAHS Scientific Decade 2013-2022. *Hydrological Sciences Journal*, 58(6):1256-1275, doi:10.1080/02626667.2013.809088. **No citations: 301**

Hall, J., Arheimer, B., Borga, M., Brázdil, R., et al. 2014. Understanding Flood Regime Changes in Europe: A state of the art assessment, *Hydrol. Earth Syst. Sci. (HESS)*, 18, 2735–2772 (doi:10.5194/hess-18-2735-2014). **No citations: 200**

Lindström, G., Pers, C.P., Rosberg, R., Strömquist, J., and Arheimer, B. 2010. Development and test of the HYPE (Hydrological Predictions for the Environment) model – A water quality model for different spatial scales. *Hydrology Research* 41.3-4:295-319. **No citations: 195**

Journal Articles (peer-reviewed)

1. Arheimer, B., Pimentel, R., Isberg, K., Crochemore, L., Andersson, J. C. M., Hasan, A., and Pineda, L., 2020. Global catchment modelling using World-Wide HYPE (WWH), open data and stepwise parameter estimation, *Hydrol. Earth Syst. Sci.* 24, 535–559, <https://doi.org/10.5194/hess-24-535-2020>
2. Arheimer, B. and Lindström, G. 2019. Detecting changes in river flow caused by wildfires, storms, urbanization, regulation, and climate across Sweden. *Water Resources Research*, 55. <https://doi.org/10.1029/2019WR024759>
3. Crochemore, L., Isberg, K., Pimentel, R., Pineda, L., Hasan, A. and Arheimer, B. 2019. Lessons learnt from checking the quality of openly accessible river flow data worldwide, *Hydrological Sciences Journal*, DOI: 10.1080/02626667.2019.1659509
4. Blöschl, G., Hall, J., Viglione, A., Perdigão, R.A.P., Parajka, J., Merz, B., Lun, D. Arheimer, B., et al. 2019. Changing climate both increases and decreases European river floods. *Nature* 573:108–111. <https://doi.org/10.1038/s41586-019-1495-6>
5. Bartosova, A., Capell, R., Olesen, J. E., Jabloun, M., Refsgaard, J. C., Donnelly, C., . . . Arheimer, B. 2019. Future socioeconomic conditions may have a larger impact than climate change on nutrient loads to the Baltic Sea. *Ambio*, 48(11), 1325-1336. DOI: <https://doi.org/10.1007/s13280-019-01243-5>
6. Höltinger, S., Mikovits, C., Schmidt, J., Baumgartner, J., Arheimer, B., Lindström, G., Wetterlund, E. 2019. The impact of climatic extreme events on the feasibility of fully renewable power systems: a case study for Sweden, *Energy* 178: 695-713, doi: 10.1016/j.energy.2019.04.128
7. Weichselgartner J. and Arheimer B., 2019. Evolving climate services into knowledge-action systems. *Weather, Climate, and Society* 11 (2): 385-399. <https://journals.ametsoc.org/doi/full/10.1175/WCAS-D-18-0087.1>
8. Bloeschl, G., Bierkens, M. F. P., Chambel, A., Cudennec, C., Destouni, G., Fiori, A., . . . Zhang, Y. 2019. Twenty-three unsolved problems in hydrology (UPH) - a community perspective. *Hydrological Sciences Journal*, 64(10), 1141-1158. <https://doi.org/10.1080/02626667.2019.1620507>
9. Iliopoulou, T., Aguilar, C., Arheimer, B., Bermúdez, M., Bezak, N., Ficchi, A., Koutsoyiannis, D., Parajka, J., Polo, M. J., Thirel, G., and Montanari, A. 2019. A large sample analysis of European

- rivers on seasonal river flow correlation and its physical drivers, *Hydrol. Earth Syst. Sci.*, 23, 73-91, <https://doi.org/10.5194/hess-23-73-2019>.
10. MacDonald, M. K., Stadnyk, T. A., Déry, S. J., Braun, M., Gustafsson, D., Isberg, K., and Arheimer, B. 2018. Impacts of 1.5 and 2.0 °C warming on pan-Arctic river discharge into the Hudson Bay Complex through 2070. *Geophysical Research Letters*, 45, 7561–7570. <https://doi.org/10.1029/2018GL079147>
 11. Donnelly, C., Ernst, K., Arheimer, B. 2018. A comparison of hydrological climate services at different scales by users and scientists. *Climate Services* 11:24-35, <https://doi.org/10.1016/j.cliser.2018.06.002>
 12. Arheimer, B., Hjerdt, N. and Lindström, G. 2018. Artificially induced floods to manage forest habitats under climate change. *Front. Environ. Sci.* 6:102. doi: 10.3389/fenvs.2018.00102
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Web products

Open Data

<http://hypeweb.smhi.se>

<http://vattenwebb.smhi.se>

Climate Service

<http://swicca.climate.copernicus.eu/>

Open Source code

<http://hypecode.smhi.se/>

Hydrological Research at SMHI

www.smhi.se/hydrology-research

Film (for flat screen and dome projection)

<http://www.smhi.se/en/research/research-departments/hydrology/urban-water-vision-eng-1.22093>

YouTube videos

Open science: <https://www.youtube.com/watch?v=KsV7v44T2oY&t=43s>

Open Innovations: <https://www.youtube.com/watch?v=CVoTSPFDLFA&feature=youtu.be>

Open to the world: <https://www.youtube.com/watch?v=-RTEYKrdXf0&t=56s>

Virtual water-Science Laboratory

<http://www.switch-on-vwsl.eu/>