

Scientific Publications

Five most cited Articles, according to Web of Science (March 2022):

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: 712**

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: 536**

Blöschl, G., Hall, J., Parajka, J., Perdigão, R.A.P., Merz, B., [Arheimer, B.](#) et al. 2017. Changing climate shifts timing of European floods. *Science* 357(6351):588-590, doi: 10.1126/science.aan2506.
<http://science.sciencemag.org/content/357/6351/588> **No citations: 530**

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: 506**

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> **No citations: 500**

Journal Articles (peer-reviewed)

1. Bertola, M., Blöschl, G., Bohac, M. et al. 2023. Megafloods in Europe can be anticipated from observations in hydrologically similar catchments. *Nat. Geosci.* <https://doi.org/10.1038/s41561-023-01300-5>
2. Pimentel, R., Crochemore, L., Andersson, J.C.M. and Arheimer, B., 2023. Assessing robustness in global hydrological predictions by comparing modelling and Earth observations, *Hydrological Sciences Journal*, 68:16, 2357-2372, DOI: 10.1080/02626667.2023.2267544
<https://www.tandfonline.com/doi/full/10.1080/02626667.2023.2267544>
3. Pimentel, R., Arheimer, B., Crochemore, L., Andersson, J. C. M., Pechlivanidis, I. G., and Gustafsson, D., 2023. Which potential evapotranspiration formula to use in hydrological modeling world-wide? *Water Resources Research*, 59, e2022WR033447.
<https://doi.org/10.1029/2022WR033447>
4. Cudennec, C., Lins, H., Uhlenbrook, S., Amani, A., and [Arheimer, B.](#), 2022. Editorial - Operational, epistemic and ethical value chaining of hydrological data to knowledge and services: a watershed moment. *Hydr. Sciences Journal* 67(16): 2363-2368. DOI: 10.1080/02626667.2022.2150380
5. de Lavenne, A., Lindstrom, G., Stromqvist, J., Pers, C., Bartosova, A., and [Arheimer, B.](#), 2022. Evaluation of overland flow modelling hypotheses with a multi-objective calibration using discharge and sediment data. *Hydr. Processes* 36(12): e14767, DOI: 10.1002/hyp.14767
6. de Lavenne, A., Andréassian, V., Crochemore, L., Lindström, G., and [Arheimer, B.](#), 2022: Quantifying multi-year hydrological memory with Catchment Forgetting Curves, *Hydrol. Earth Syst. Sci.*, 26, 2715–2732, <https://doi.org/10.5194/hess-26-2715-2022>.
7. Santos, L., Andersson, J.C.M. and [Arheimer, B.](#), 2022. Evaluation of parameter sensitivity of a rainfall-runoff model over a global catchment set, *Hydrological Sciences Journal*, 67:3, 342-357, DOI: 10.1080/02626667.2022.2035388. <https://doi.org/10.1080/02626667.2022.2035388>
8. Arciniega-Esparza, S., Birkel, C., Chavarría-Palma, A., [Arheimer, B.](#), and Breña-Naranjo, J. A., 2022. Remote sensing-aided rainfall–runoff modeling in the tropics of Costa Rica, *Hydrol. Earth Syst. Sci.*, 26, 975–999, <https://doi.org/10.5194/hess-26-975-2022>.

9. Capell, R., Bartosova, A., Tonderski, K., Arheimer, B., Pedersen, S.M., Zilans, A., 2021. From local measures to regional impacts: Modelling changes in nutrient loads to the Baltic Sea. *Journal of Hydrology: Regional Studies* 36, 100867. <https://doi.org/10.1016/j.ejrh.2021.100867>
10. Bartosova, A., Arheimer, B., de Lavenne, A., Capell, R. and Strömqvist, J. 2021. Large-Scale Hydrological and Sediment Modeling in Nested Domains under Current and Changing Climate. *Journal of Hydrologic Engineering*, Vol. 26, Issue 5 (May 2021) [https://doi.org/10.1061/\(ASCE\)HE.1943-5584.0002078](https://doi.org/10.1061/(ASCE)HE.1943-5584.0002078)
11. Pimentel, R. and Arheimer, B., 2021. Hydrological impacts of a wildfire in a Boreal region: The Västmanland fire 2014 (Sweden). *Science of The Total Environment* 756:143519. <https://doi.org/10.1016/j.scitotenv.2020.143519>
12. Photiadou, C., Arheimer, B., Bosshard, T., Capell, R., Elenius, M., Gallo, I., Gyllensvärd, F., Klehmet, K., Little, L., Ribeiro, I., Santos, L. and Sjökvist, E. 2021. Designing a climate service for planning climate actions in vulnerable countries. *Atmosphere* 12:121. <https://doi.org/10.3390/atmos12010121>
13. Merks, J., Photiadou, C., Ludwig, F. and Arheimer, B., 2020. Comparison of open access global climate services for hydrological data, *Hydrological Sciences Journal*, DOI: 10.1080/02626667.2020.1820012. <https://doi.org/10.1080/02626667.2020.1820012>
14. Hundecha, Y., Arheimer, B., Berg, P., Capell, R., Musuza, J., Pechlivanidis, I. and Photiadou, C. 2020. Effect of model calibration strategy on climate projections of hydrological indicators at a continental scale. *Climatic Change* 163:1287–1306. <https://doi.org/10.1007/s10584-020-02874-4>
15. Du, T.L.T., Lee, H., Bui, D.D., Arheimer, B., Li, H-Y., Olsson, J., Darby, S.E., Sheffield, J., Kim, D., and Hwang, E. 2020. Streamflow prediction in “geopolitically ungauged” basins using satellite observations and regionalization at subcontinental scale. *Journal of Hydrology*, ISSN: 0022-1694, Vol: 588, Page: 125016. <https://doi.org/10.1016/j.jhydrol.2020.125016>
16. Stadnyk, T.A., MacDonald, M.K., Tefs, A., Dery, S.J., Koenig, K., Gustafsson, D., Isberg, K., Arheimer, B., 2020. Hydrological modeling of freshwater discharge into Hudson Bay using HYPE. *Elementa-science of the Antropocene* 8:43. <https://doi.org/10.1525/elementa.439>
17. Cudennec, C., Lins, H., Uhlenbrook, S. and Arheimer, B., 2020. Editorial – Towards FAIR and SQUARE hydrological data, *Hydrological Sciences Journal*, 65:5, 681-682, DOI: 10.1080/02626667.2020.1739397
18. 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>
19. 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(11):8990-9005. <https://doi.org/10.1029/2019WR024759>
20. 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
21. 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>
22. 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>
23. 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
 24. 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>
 25. 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>
 26. 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>.
 27. 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>
 28. 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>
 29. 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
 30. Pugliese, A., Persiano, S., Bagli, S., Mazzoli, P., Parajka, J., Arheimer, B., Capell, R., Montanari, A., Blöschl, G., and Castellarin, A. 2018. A geostatistical data-assimilation technique for enhancing macro-scale rainfall–runoff simulations, *Hydrol. Earth Syst. Sci.*, 22, 4633-4648, <https://doi.org/10.5194/hess-22-4633-2018>.
 31. Krysanova, V., Donnelly, C., Gelfan, A., Gerten, D., Arheimer, B., Hattermann, F. and Kundzewicz, Z.W., 2018. How the performance of hydrological models relates to credibility of projections under climate change, *Hydrological Sciences Journal* 63(5): 696-720 DOI: 10.1080/02626667.2018.1446214
 32. Jaramillo, F., Cory, N., Arheimer, B., Laudon, H., van der Velde, Y., Hasper, T. B., Teutschbein, C., and Uddling, J. 2018. Dominant effect of increasing forest biomass on evapotranspiration: interpretations of movement in Budyko space, *Hydrol. Earth Syst. Sci.*, 22, 567-580. <https://doi.org/10.5194/hess-22-567-2018>
 33. Andersson, J.C.M., Arheimer B., Traoré, F., Gustafsson, D., Ali, A. 2017. Process refinements improve a hydrological model concept applied to the Niger River basin. *Hydrological Processes* 31(25), pp.4540-4554. <https://doi.org/10.1002/hyp.11376>
 34. Krysanova, V., Vetter, T., Eisner, S., Huang, S., Pechlivanidis, I. G., Strauch, M., Aich, V., Arheimer, B., Chamorro, A., Gelfan, A., van Griensven, A., Kumar, R., Kundu, D., Lobanova, A., Mishra, V., Plötner, S., Reinhardt, J., Seidou, O., Wang, X., Wortmann, M., Zeng, X., Hattermann, F. F. 2017. Intercomparison of regional-scale hydrological models in the present and future climate for 12 large river basins worldwide - A synthesis. *Environmental Research Letters*, 12 (10):105002. <https://doi.org/10.1088/1748-9326/aa8359>

35. Vesakoski, J-M., Nylén, T., Arheimer, B., *et al.* 2017. Arctic Mackenzie Delta channel planform evolution during 1983–2013 utilising Landsat data and hydrological timeseries. *Hydrological Processes* 31(22). 2017;1–17. <https://doi.org/10.1002/hyp.11315>
36. Blöschl, G., Hall, J., Parajka, J., Perdigão, R.A.P., Merz, B., Arheimer, B. *et al.* 2017. Changing climate shifts timing of European floods. *Science* 357(6351):588-590, doi: 10.1126/science.aan2506. <http://science.sciencemag.org/content/357/6351/588>
37. Arheimer, B., Donnelly, C. and Lindström, G. 2017. Regulation of snow-fed rivers affects flow regimes more than climate change. *Nature Communications* 8(62). doi:10.1038/s41467-017-00092-8. <https://www.nature.com/articles/s41467-017-00092-8>
38. Kuentz, A., Arheimer, B., Hundecha, Y., and Wagener, T. 2017. Understanding hydrologic variability across Europe through catchment classification, *Hydrol. Earth Syst. Sci.*, 21, 2863-2879, <https://doi.org/10.5194/hess-21-2863-2017>.
39. White, C. J., Carlsen, H., Robertson, A. W., Klein, R. J.T., Lazo, J. K., Kumar, A., Vitart, F., Coughlan de Perez, E., Ray, A. J., Murray, V., Bharwani, S., MacLeod, D., James, R., Fleming, L., Morse, A. P., Eggen, B., Graham, R., Kjellström, E., Becker, E., Pegion, K. V., Holbrook, N. J., McEvoy, D., Depledge, M., Perkins-Kirkpatrick, S., Brown, T. J., Street, R., Jones, L., Remenyi, T. A., Hodgson-Johnston, I., Buontempo, C., Lamb, R., Meinke, H., Arheimer, B. and Zebiak, S. E. 2017. Potential applications of subseasonal-to-seasonal (S2S) predictions. *Meteorol. Appl.* 24: 315–325, doi:10.1002/met.1654
40. Andersson, J.C.M., Ali, A., Arheimer, B., Gustafsson, D., Minoungou, B. 2017. Providing peak river flow statistics and forecasting in the Niger River basin. *Physics and Chemistry of the Earth, Parts A/B/C, Volume 100, August 2017, Pages 3-12.* <https://doi.org/10.1016/j.pce.2017.02.010>
41. Arheimer, B. and Pers B.C. 2017. Lessons learned? Effects of nutrient reductions from constructing wetlands in 1996–2006 across Sweden. *Ecological Engineering, Volume 103, Part B, June 2017, Pages 404–414.* doi:10.1016/j.ecoleng.2016.01.088.
42. Gosling, S. N., Zaherpour, J., Mount, N., Hattermann, F. F., Dankers, R., Arheimer, B., Breuer, L., Ding, J., Haddeland, I., Kumar, R., Kundu, D., Liu, J., Griensven, A. van, Veldkamp, T. I. E., Vetter, T., Wang, X. and Zhan, X. 2017. A comparison of changes in river runoff from multiple global and catchment-scale hydrological models under global warming scenarios of 1°C, 2°C and 3°C, *Climatic Change* 141(3):577–595. doi: 10.1007/s10584-016-1773-3
43. 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(3):467–481 DOI 10.1007/s10584-016-1723-0
44. Gelfan, A., Gustafsson, D., Motovilov, Y., Arheimer, B., Kalugin, A., Krylenko, I. and Lavrenov, A. 2017. Climate change impact on the water regime of two great Arctic rivers: modeling and uncertainty issues. *Climatic Change* 141(3):499–515. DOI: 10.1007/s10584-016-1710-5
45. Nijzink, R., Hutton, C., Pechlivanidis, I., Capell, R., Arheimer, B., Freer, J., Han, D., Wagener, T., McGuire, K., Savenije, H., and Hrachowitz, M. 2016. The evolution of root-zone moisture capacities after deforestation: a step towards hydrological predictions under change? *Hydrol. Earth Syst. Sci.*, 20, 4775-4799, doi:10.5194/hess-20-4775-2016.
46. Hutton, C., Wagener, T., Freer, J., Han, D., Duffy, C. and Arheimer, B. 2016. Most computational hydrology is not reproducible, so is it really science? *Water Resour. Res.* 52(10):7548–7555. doi:10.1002/2016WR019285
47. Olsson, J., Arheimer, B., Borris, M., Donnelly, C., Foster, K., Nikulin, G., Persson, M., Perttu, A-M., Uvo, C.B., Viklander, M. and Yang, W. 2016. Hydrological Climate Change Impact

- Assessment at Small and Large Scales: Key Messages from Recent Progress in Sweden. *Climate* 4(3), 39; doi:10.3390/cli4030039
48. Hundecha, Y., Arheimer, B., Donnelly, C., Pechlivanidis, I. 2016. A regional parameter estimation scheme for a pan-European multi-basin model. *Journal of Hydrology: Regional Studies*, Volume 6, June 2016, Pages 90-111. doi:10.1016/j.ejrh.2016.04.002
49. Donnelly, C, Andersson, J.C.M. and Arheimer, B., 2016. Using flow signatures and catchment similarities to evaluate a multi-basin model (E-HYPE) across Europe. *Hydr. Sciences Journal* 61(2):255-273, doi: 10.1080/02626667.2015.1027710
50. Archfield, S.A., Clark, M., Arheimer, B., Hay, L.E., McMillan, H., Kiang, J.E., Seibert, J., Hakala, K., Bock, A., Wagener, T., Farmer, W.H., Andréassian, V., Attinger, S., Viglione, A., Knight, R., Markstrom, S. and Over, T. 2015. Accelerating advances in continental domain hydrologic modelling. *Water Resources Research* 51(12):10078–10091. doi:10.1002/2015WR017498
51. Pechlivanidis, I. G. and Arheimer, B. 2015. Large-scale hydrological modelling by using modified PUB recommendations: the India-HYPE case, *Hydrol. Earth Syst. Sci.*, 19, 4559-4579, doi:10.5194/hess-19-4559-2015.
52. Andersson, J.C.M., Pechlivanidis, I.G., Gustafsson, D., Donnelly, C., and Arheimer, B. 2015. Key factors for improving large-scale hydrological model performance. *European Water* 49:77-88.
53. Arheimer, B., Nilsson, J. and Lindström, G. 2015. Experimenting with Coupled Hydro-Ecological Models to Explore Measure Plans and Water Quality Goals in a Semi-Enclosed Swedish Bay. *Water* 7(7):3906-3924. doi:10.3390/w7073906
54. Ceola, S., Arheimer, B., Baratti, E., Blöschl, G., Capell, R., Castellarin, A., Freer, J., Han, D., Hrachowitz, M., Hundecha, Y., Hutton, C., Lindström, G., Montanari, A., Nijzink, R., Parajka, J., Toth, E., Viglione, A., and Wagener, T., 2015: Virtual laboratories: new opportunities for collaborative water science, *Hydrol. Earth Syst. Sci.*, 19:2101-2117, doi:10.5194/hess-19-2101-2015.
55. Arheimer, B. and Lindström, G., 2015. Climate impact on floods: changes in high flows in Sweden in the past and the future (1911–2100), *Hydrol. Earth Syst. Sci.*, 19:771-784, doi:10.5194/hess-19-771-2015.
56. Hall, J., Arheimer, B., Borga, M, Brázdil, R., Claps, P., Kiss, A., Kjeldsen, T.R., Kriaučiūnienė, J., Kundzewicz, Z., Lang, M., Llasat, M.C., Macdonald, N., McIntyre, N., Mediero, L., Merz, B., Merz, R., Molnar, P., Montanari, A., Neuhold, C., Parajka, J., Perdigão, R.A. P., Plavcová, L., Rogger, M., Salinas, J.L., Sauquet, E., Schär, C., Szolgay, J., Viglione, A., and Blöschl, G. 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)
57. Meier, M.H.E., Andersson, H.C., Arheimer, B., Donnelly, C., Eilola, K., Gustafsson, B.G., Kotwicki, L., Neset, T., Niiranen, S., Piwowarczyk, J., Savchuk, O.P., Schenk, F., Węśławski, J.M., and Zorita, E. 2014. Ensemble Modeling of the Baltic Sea Ecosystem to Provide Scenarios for Management. *AMBIO* 43(1): 37-48. Doi: 10.1007/s13280-013-0475-6
58. Hrachowitz, M., Savenije, H.H.G., Blöschl, G., McDonnell, J.J., Sivapalan, M., Pomeroy, J.W., Arheimer, B., Blume, T., Clark, M.P., Ehret, U., Fenicia, F., Freer, J.E., Gelfan, A., Gupta, H.V., Hughes, D.A., Hut, R.W., Montanari, A., Pande, S., Tetzlaff, D., Troch, P.A., Uhlenbrook, S., Wagener, T., Winsemius, H.C., Woods, R.A., Zehe, E. and Cudennec, C., 2013. A decade of Predictions in Ungauged Basins (PUB) - a review. *Hydrological Sciences Journal*, 58(6):1198-1255, DOI:10.1080/02626667.2013.803183
59. Montanari, A., Young, Savenije, G., H., Hughes, D., Wagener, T., Ren, L., Koutsoyiannis, D., Cudennec, C., Grimaldi, S., G. Bloeschl, G., Sivapalan, M., Beven, K., Gupta, H., Arheimer, B., Huang, Y., Schumann, A., Post, D., Srinivasan, V., Boegh, E., Hubert, P., Harman, C., Thompson, S., Rogger, M., Hipsey, M., Toth, E., Viglione, A., Di Baldassarre, G., Schaeffli, B.,

- McMillan, H., Schymanski, S.J., Characklis, G., Yu, B., Pang, Z., Belyaev, V., 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.
60. Meier, M. H. E., Andersson, H. C., Arheimer, B., Blenckner, T., Chubarenko, B., Donnelly, C., Eilola, K., Gustafsson, B. G., Hansson, A., Havenhand, J., Höglund, A., Kuznetsov, I., MacKenzie, B. R., Müller-Karulis, B., Neumann, T., Niiranen, S., Piwowarczyk, J., Raudsepp, U., Reckermann, M., Ruoho-Airola, T., Savchuk, O. P., Schenk, F., Schimanke, S., Väli, G., Weslawski, J.-M., and Zorita, E. 2012. Comparing reconstructed past variations and future projections of the Baltic Sea ecosystem — first results from multi-model ensemble simulations. *Environ. Res. Lett.* 7 034005 doi:10.1088/1748-9326/7/3/034005
61. Arheimer, B., Dahné J., and Donnelly, C. 2012. Climate change impact on riverine nutrient load and land-based remedial measures of the Baltic Sea Action Plan. *Ambio* 41 (6):600-612. doi: 10.1007/s13280-012-0323-0.
62. Arheimer, B., Dahné, J., Donnelly, C., Lindström, G. and Strömqvist, J. 2012. Water and nutrient simulations using the HYPE model for Sweden vs. the Baltic Sea basin – influence of input-data quality and scale. *Hydrology research* 43(4):315-329. DOI: 10.2166/nh.2012.010
63. Strömqvist, J., Arheimer, B., Dahné, J., Donnelly, C. and Lindström, G. 2012. Water and nutrient predictions in ungauged basins – Set-up and evaluation of a model at the national scale. *Hydrological Sciences Journal* 57(2):229-247. <https://doi.org/10.1080/02626667.2011.637497>
64. Reckermann M., Langner, J., Omstedt, A., von Storch, H., Keevallik, S., Schneider, B., Arheimer, B., Meier, H.E.M. and Hünicke, B. 2011. BALTEX—an interdisciplinary research network for the Baltic Sea region. *Environ. Res. Lett.* 6(4): doi:10.1088/1748-9326/6/4/045205
65. Alkan Olsson, J., Jonsson, A., Andersson, L., and Arheimer, B. 2011. A model supported participatory process: a socio-legal analysis of a bottom up implementation of the EU Water Framework Directive. *International J. of Agricultural Sustainability* 9(2), 379-389.
66. Arheimer, B., Lindström, G. and Olsson, J. 2011. A systematic review of sensitivities in the Swedish flood-forecasting system. *Atmospheric Research* 100:275–284.
67. Lindström, G., Pers, C.P., Rosberg, J., Strömqvist, 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.
68. Hejzlar J., Anthony S., Arheimer B., Behrendt H., Bouraoui F., Grizzetti B., Groenendijk P., Jeuken M. H. J. L., Johnsson H., Lo Porto A., Kronvang B., Panagopoulos Y., Siderius C., Silgram M., Venohr M. and Žaloudík J. 2009. Nitrogen and phosphorus retention in surface waters: an inter-comparison of predictions by catchment models of different complexity. *J. Environ. Monit.*, 11(3):584-593.
69. Kronvang B., Behrendt H., Andersen H. E., Arheimer B., Barr A., Borgvang S. A., Bouraoui F., Granlund K., Grizzetti B., Groenendijk P., Schwaiger E., Hejzlar J., Hoffman L., Johnsson H., Panagopoulos Y., Lo Porto A., Reisser H., Schoumans O., Anthony S., Silgram M., Venohr M. and Larsen S. E. 2009. Ensemble modelling of nutrient loads and nutrient load partitioning in 17 European catchments. *J. Environ. Monit.*, 11(3):572-583.
70. Schoumans O., Silgram M., Groenendijk P., Bouraoui F., Andersen H.E., Krongvang B., Behrendt H., Arheimer B., Johnsson H., Panagopoulos Y., Mimikou M., Lo Porto A., Reisser H., Le Gall G., Barr A., Anthony S.G., 2009. Description of nine nutrient loss models: capabilities and suitability based on their characteristics. *J. Environ. Monit.*, 11(3):506-514.
71. Schoumans O.F., Silgram M., Walvoort D.J.J., Groenendijk P., Bouraoui F., Andersen H.E., Lo Porto A., Reisser H., Le Gall G., Anthony S., Arheimer B., Johnsson H., Panagopoulos Y., Mimikou M., Zweynert U., Behrendt H., Barr A. 2009. Evaluation of the difference of eight model applications to assess diffuse annual nutrient losses from agricultural land. *J. Environ. Monit.*, 11(3):540-553.
72. Silgram M., Anthony S.G., Collins A.L., Strömqvist J., Bouraoui F., Schoumans O., Lo Porto A., Groenendijk P., Arheimer B., Mimikou M. and Johnsson H., 2009. Evaluation of diffuse pollution model applications in EUROHARP catchments with limited data. *J. Environ. Monit.*, 11(3):554-572.

73. Silgram M., Schoumans O. F., Walvoort D.J.J., Anthony S.G., Groenendijk P., Strömquist J., Bouraoui F., Arheimer B., Kapetanaki M., Lo Porto A. and Mårtensson K. 2009. Subannual models for catchment management: evaluating model performance on three European catchments. *J. Environ. Monit.*, 11(3):526-539.
74. Andersson, L., Alkan-Olsson, J. Arheimer, B. and Johnsson, A. 2008. Use of participatory scenario modelling as platforms in stakeholder dialogues. HELP special edition. *Water SA* 34(4):439-447.
75. Arheimer, B., Andersson, L., Alkan-Olsson, J. and Jonsson, A. 2007. Using catchment models for establishment of measure plans according to the WFD. *Water Science and Technology* 56(1):21-28.
76. Jonsson, A., Andersson, L., Alkan-Olsson, J., Arheimer, B. 2007. How participatory can participatory modeling be? A discussion of the degree of influence of stakeholder and expert perspectives in six dimensions of participatory modeling. *Water Science and Technology* 56(1):207-214.
77. 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.
78. Jöborn, A., Danielsson, I., Arheimer, B., Jonsson, A., Larsson, M.H., Lundqvist, L.J., Löwgren, M. and Tonderski, K. 2005. Integrated water management for eutrophication control: public participation, pricing policy, and catchment modelling. *Ambio* 34(7):482-488.
79. Andersson, L. Rosberg, J., Pers, B.C., Olsson, J. and Arheimer, B. 2005. Estimating catchment nutrient flow with the HBV-NP model: sensitivity to input data. *Ambio* 34(7):521-532. <https://doi.org/10.1579/0044-7447-34.7.521>
80. Arheimer, B., Andréasson, J., Fogelberg, S., Johnsson, H., Pers, C.B. and Persson, K. 2005. Climate change impact on water quality: model results from southern Sweden. *Ambio* 34(7):559-566. <https://doi.org/10.1579/0044-7447-34.7.559>
81. Arheimer, B., Löwgren, M., Pers, B.C. and Rosberg, J. 2005. Integrated catchment modeling for nutrient reduction: scenarios showing impacts, potential and cost of measures. *Ambio* 34(7):513-520. <https://doi.org/10.1579/0044-7447-34.7.513>
82. Lindström, G., Rosberg, J. and Arheimer, B. 2005. Parameter Precision in the HBV-NP Model and Impacts on Nitrogen Scenario Simulations in the Rönneå River, Southern Sweden. *Ambio* 34(7): 533-537. <https://doi.org/10.1579/0044-7447-34.7.533>
83. Tonderski, K., Arheimer, B. and Pers, B.C. 2005. Measured and modeled effect of constructed wetlands on phosphorus transport in South Sweden. *Ambio* 34(7): 544-551.
84. Venohr, M., Donohue, I., Fogelberg, S., Arheimer, B., Irvine, K. and Behrendt, H. 2005. Nitrogen retention in a river system and the effects of river morphology and lakes. *Water Science and Technology*, 51(3-4):19-29.
85. Arheimer, B., Andersson, L., Larsson, M., Lindström, G., Olsson, J., Pers B.C., 2004. Modelling diffuse nutrient flow in eutrophication control scenarios. *Water Science and Technology* 49(3):37-45.
86. Arheimer, B., Torstensson, G. and Wittgren, H.B., 2004. Landscape planning to reduce coastal eutrophication: Constructed Wetlands and Agricultural Practices. *Landscape and Urban Planning* 67(1-4):205-215.
87. Andersson, L. and Arheimer, B., 2003. Modelling of human and climatic impact on nitrogen load in a Swedish river 1885-1994. *Hydrobiologia* 497(1-3):63-77.
88. Arheimer, B., 2003. Handling scales when estimating Swedish nitrogen contribution from various sources to the Baltic Sea. *Landschap* 20(2):81-90.

89. Arheimer, B. and Wittgren, H.B., 2002. Modelling Nitrogen Retention in Potential Wetlands at the Catchment Scale. *Ecological Engineering* 19(1):63-80.
90. Andersson, L. and Arheimer, B., 2001. Consequences of changed wetness on riverine nitrogen – human impact on retention vs. natural climatic variability. *Regional Environmental Change* 2:93-105.
91. Pettersson, A., Arheimer, B. and Johansson, B., 2001. Nitrogen concentrations simulated with HBV-N: new response function and calibration strategy. *Nordic Hydrology* 32(3):227-248.
92. Arheimer, B. and Brandt, M., 2000. Watershed modelling of non-point nitrogen pollution from arable land to the Swedish coast in 1985 and 1994. *Ecological Engineering* 14:389-404.
93. Arheimer, B. and Lidén, R., 2000. Nitrogen and phosphorus concentrations from agricultural catchments - influence of spatial and temporal variables. *Journal of Hydrology* 227:140-159.
94. Marmefelt, E., Arheimer, B. and Langner, J., 1998. An integrated biogeochemical model system for the Baltic Sea. *Hydrobiologia* 393:45-56.
95. Arheimer, B. and Brandt, M., 1998. Modelling nitrogen transport and retention in the catchments of southern Sweden. *Ambio* 27(6):471-480.
96. Arheimer, B., Andersson, L. and Lepistö, A., 1996. Variations of nitrogen concentrations in forest streams - influences of flow, seasonality and catchment characteristics. *Journal of Hydrology* 179:281-304.
97. Wittgren, H. B. and Arheimer, B., 1996. Source apportionment of riverine nitrogen transport based on catchment modelling. *Water Science and Technology* 33(4-5):109-115.
98. Lepistö, A., Andersson, L., Arheimer, B. and Sundblad, K., 1995. Influence of catchment characteristics, forestry activities and deposition on nitrogen export from small forested catchments. *Water, Air and Soil Pollution* 84:81-102.
99. Arheimer, B. and Wittgren, H. B., 1994. Modelling the effects of wetlands on regional nitrogen transport. *Ambio* 23(6):378-386.

Books

1. Arheimer, B., Collins, A., Elango, L., Krysanova, V., Meybeck, M., Stone, M. (Eds), 2013. *Understanding fresh-water quality problems in a changing world*. IAHS publication 361, ISSN 0144-7815, p. 371.
2. Arheimer, B. and Lindström, L. 2013. Implementing the EU Water Framework Directive in Sweden. Chapter 11.20 in: Bloesch, G., Sivapalan, M., Wagener, T., Viglione, A. and Savenije, H. (Eds). *Runoff Predictions in Ungauged Basins – Synthesis across Processes, Places and Scales*. Cambridge University Press, Cambridge, UK. (p. 465) pp. 353-359.
3. Arheimer, B., 1998. Riverine Nitrogen – analysis and modelling under Nordic conditions. Kanalttryckeriet, Motala. pp. 200.

Reports and Proceedings (peer-reviewed)

1. Arheimer, B. and the Hydrological Research unit, 2018. Experience from using ensemble methods in climate and water services. In: Ensemble Methods: Nowcasting to Climate Change - Abstracts of the Bureau of Meteorology Annual R&D Workshop, 26th November to 30th November 2018, Melbourne, Australia Keith Day, Michael Naughton, Saima Aijaz, Surendra Rauniyar, Grant Smith, Carlos Velasco-Forero and Meelis Zidikeri (editors). Australian Bureau of Meteorology Research Report No. 030, November 2018, pp123-127.
<http://www.bom.gov.au/research/publications/researchreports/BRR-030.pdf>

2. Andersson, J., Arheimer, B. and N. Hjerdt, 2016. Combine and Share Essential Knowledge for Sustainable Water Management, *The Solutions Journal*, Volume 7, Issue 3, May 2016, Pages 30-32 (<https://www.thesolutionsjournal.com/article/combine-share-essential-knowledge-sustainable-water-management/>)
3. Andersson, J.C.M., Ali, A., Arheimer, B., Gustafsson, D., Minoungou, B. 2015. Providing infrastructure design variables and flood forecasting in the Niger River basin, in Proceedings of the 16th WaterNet/WARFSA/GWP-SA Symposium “Infrastructural Planning for Water Security in Eastern and Southern Africa”, 28–30 October 2015, Pointe Aux Piments, Mauritius.
4. Hall, J., Arheimer, B., Aronica, G. T., Bilibashi, A., Boháč, M., Bonacci, O., Borga, M., Burlando, P., Castellarin, A. *et al.* (in total 43 authors), 2015. A European Flood Database: facilitating comprehensive flood research beyond administrative boundaries. *Proc. IAHS*, 370: 89–95, proc-iahs.net/370/89/2015/, doi:10.5194/piahs-370-89-2015.
5. Pechlivanidis, I. G. and Arheimer, B., 2015. Large-scale hydrological modelling by using modified PUB recommendations: the India-HYPE case, *Hydrol. Earth Syst. Sci. Discuss.*, 12, 2885-2944, doi:10.5194/hessd-12-2885-2015.
6. Andersson, J.C.M.; Ali, A.; Arheimer, B.; Traoré F. 2015. Strengthening resilience through collaborative research and open information. Poster presented at the World Water Week conference in Stockholm, Sweden, 23-28 August 2015. Available online at <http://poster.worldwaterweek.org/Default.aspx?s=E3-32-26-82-95-BA-7F-76-44-BC-FC-75-C9-20-85-59>.
7. Andersson, J.C.M.; Andersson, L.; Arheimer, B.; Bosshard, T.; Graham, L.P.; Nikulin, G.; Kjellström E. 2014. Experience from Assessments of Climate Change Effects on the Water Cycle in Africa, in Proceedings of the 15th WaterNet/WARFSA/GWP-SA Symposium “IWRM for harnessing socio-economic development in Eastern and Southern Africa”, 29–31 October 2014, Lilongwe, Malawi. Available under <http://www.waternetonline.org/downloads/proceedings> -> 15th symposium -> Hydrology for Oral Presentations.
8. Andersson, J.C.M.; Ali, A.; Arheimer, B.; Traoré F. 2014. Niger-HYPE: How may climate change affect floods and droughts in the Niger River basin? / Comment le changement climatique pourrait affecter les inondations et sécheresses dans le bassin du fleuve Niger?, Paper no. 2. in van Lanen H.A.J.; Demuth, S.; van der Heijden, A. (eds.) Poster proceedings of the 7th Global FRIEND-Water conference “Hydrology in a Changing World: Environmental and Human Dimensions”, held in Montpellier, France, 7-10 October 2014. Wageningen University, Wageningen and UNESCO, Paris.
9. Arheimer, B. and Lindström, G. 2014. Electricity vs Ecosystems – understanding and predicting hydropower impact on Swedish river flow. *Evolving Water Resources Systems: Understanding, Predicting and Managing Water–Society Interactions*. Proceedings of ICWRS2014, Bologna, Italy, June 2014; *IAHS Publ.* 364:313-319.
10. Pechlivanidis, I.G., Bosshard, T., Spångmyr, H., Lindström, G., Gustafsson, D., and Arheimer, B., 2014, Uncertainty in the Swedish Operational Hydrological Forecasting Systems. *ASCE proceedings: Vulnerability, Uncertainty, and Risk*. pp. 253-262. doi: 10.1061/9780784413609.026
11. Arheimer, B., Olsson, J. and Strömbäck, L. 2013. Dissemination and end-user interactions of climate change impact on water resources. *VATTEN – Journal of Water Management and Research* 69:193–199.
12. Arheimer, B., Donnelly, C. and Strömqvist, J. 2013. Large-scale effects of climate change on water resources in Sweden and Europe. *VATTEN – Journal of Water Management and Research* 69:201–207.

13. Andersson, L., Arheimer, B., Gustafsson, D., Lexén, K. and Glaumann, K. 2013. Potentials for numerical models in water management – recommendations for local water management with stakeholder involvement. *VATTEN – Journal of Water Management and Research* 69:163–171.
14. Hipsey, M.R. and Arheimer, B., 2013. Challenges for water-quality research in the new IAHS decade on hydrology under societal and environmental change. *IAHS Publ.* 361:17-29.
15. Donnelly, C., Arheimer, B., Capell, R., Dahné, J., and Strömqvist, J. 2013. Regional overview of nutrient load in Europe – challenges when using a large-scale model approach, E-HYPE. *IAHS Publ.* 361:49-58.
16. Donnelly, C., Arheimer, B., Bosshard, T. and Pechlivanidis, I. 2013. Uncertainties beyond ensembles and parameters – experiences of impact assessments using the HYPE model at various scales. Proceedings ImpactsWorld 2013. International Conference on Climate Change Effects, Potsdam, May 2013
17. Andersson, J.C.M., Pechlivanidis, I.G., Gustafsson, D., Donnelly, C., and Arheimer, B. 2013. Key Factors for Improving Large-scale Hydrological Model Performance. Proceedings of the 13th International Conference on Environmental Science and Technology, Athens, Greece. Paper no. CEST13_0753.
18. Hjerdt N., Arheimer B., Lindström G., Westman Y., Falkenroth E., Hultman M. 2011. Going Public with Advanced Simulations. In: Hřebíček J., Schimak G., Denzer R. (eds) Environmental Software Systems. Frameworks of eEnvironment. ISESS 2011. IFIP Advances in Information and Communication Technology, vol 359. Springer, Berlin, Heidelberg.
19. Arheimer, B., Wallman, P., Donnelly, C., Nyström, K. and Pers, C. 2011. E-HypeWeb: Service for Water and Climate Information – and Future Hydrological Collaboration across Europe? In: J. Hřebíček, G. Schimak, and R. Denzer (Eds.): ISESS 2011, IFIP AICT 359: 657–666.
20. Donnelly, C., Strömqvist, J. and Arheimer, B. 2011. Modelling climate change effects on nutrient discharges from the Baltic Sea catchment: processes and results. *IAHS Publ.* 348:1-6.
21. Arheimer, B., Dahné, J., Lindström, G. Marklund, L. and Strömqvist, J. 2011. Multi-variable evaluation of an integrated model system covering Sweden (S-HYPE). *IAHS Publ.* 345:145-150.
22. Donnelly, C., Dahné, J., Strömqvist and Arheimer, B. 2010. Modelling Tools: From Sweden to Pan-European Scales for European WFD Data Requirements. Proceedings BALWOIS conference on Water Informaion and Observation Systems, May 2010, Macedonia.
23. Donnelly, C., Dahné, J., Rosberg, J., Strömqvist, J., Yang, W. and Arheimer, B. 2010. High-resolution, large-scale hydrological modelling tools for Europe. *IAHS Publ.* 340:553-561.
24. Brandt, M., Arheimer, B., Gustavsson, H., Pers, C., Rosberg, J., Sundström, M., Thorén, A-K., 2009. Uppföljning av effekten av anlagda våtmarker i jordbrukslandskapet på belastning av kväve och fosfor. *Naturvårdsverket, Rapport 6309*, Okt. 2009. pp.59. (in Swedish)
25. Donnelly, C., Dahné, J., Lindström, G., Rosberg, J., Strömqvist, J., Pers, C., Yang, W. and Arheimer, B. 2009. An evaluation of multi-basin hydrological modelling for predictions in ungauged basins. *IAHS publ.* 333:112-120.
26. Strömqvist, J., Dahné, J., Donnelly, C., Lindström, G., Rosberg, J., Pers, C., Yang, W., and Arheimer, B. 2009. Using recently developed global data sets for hydrological predictions. *IAHS publ.* 333:121-127.
27. Arheimer, B., Lindström, G., Pers, C., Rosberg, J. and Strömqvist, J. 2008. Development and test of a new Swedish water quality model for small-scale and large-scale applications. XXV Nordic Hydrological Conference, Reykjavik, August 11-13, 2008. *NHP Report No. 50*, pp. 483-492.

28. Andersson, L., Alkan Olsson, J., Arheimer, B., and Jonsson, A. 2007. Use of participatory scenario modelling as a platform in stakeholder dialogues. CD of Proceedings. HELP Southern Symposium, Johannesburg, 2007.
29. Arheimer, B. and Pers, C. 2007. Kväveretention i svenska sjöar och vattendrag – betydelse för utsläpp från reningsverk. *SMHI hydrologi Nr. 107*.
30. Rosberg, J. and Arheimer, B. 2007. Modelling climate change impact on phosphorus load in Swedish rivers. In: *Water Quality and Sediment Behaviour of the Future: Predictions for the 21st Century*, IAHS Publ.314:90-97.
31. Brandt, M., Arheimer, B., and Andersson, L. 2007. Catchment modeling for quantification of Swedish nutrient transport to the sea and effects of measures, In: *Reducing the Vulnerability of Societies to Water Related Risks at the Basin Scale*, IAHS publ. 317:84-89.
32. Arheimer, B. 2006. Evaluation of water quantity and quality modelling in ungauged European basins. In: *Prediction in Ungauged Basins: Promises and Progress*. IAHS Publ. 303:99-107.
33. Arheimer, B., Andersson, L., Alkan-Olsson, J. and Jonsson, A. 2006. Using catchment models for establishment of remedy plans according to the WFD. *International Water Association (IWA), Proceeding of Diffuse Pollution Conference, Dipcon, 18-21 Sept., 2006, Istanbul. CD of Proceedings*.
34. Jonsson, A., Andersson, L., Alkan-Olsson, J., Arheimer, B. 2006. How participatory can participatory modeling be? A discussion of the degree of influence of stakeholder and expert perspectives in six dimensions of participatory modeling. *International Water Association (IWA), Proceeding of Diffuse Pollution Conference, Dipcon, 18-21 Sept., 2006, Istanbul. CD of Proceedings*.
35. Pers, C., Lindström, G., Rosberg, J., Arheimer, B. and Andersson, L.. 2006. Development of a new distributed hydrological model for large-scale and small-scale applications, In: *Proceedings of the XXIV Nordic Hydrological Conference 2006*, Eds: J.C. Refsgaard and A.L. Höjberg, NHP Report No. 49, 307-314.
36. Andersson, L., Jonsson, A., Alkan Olsson, J. and Arheimer, B. 2006. Participatory Modelling as a Tool for Stakeholder Involvement in Water Resource Management. NORDIC WATER 2006, NHC 2006, *Proceedings of the XXIV Nordic Hydrological Conference "Experiences and Challenges in Implementation of the EU Water Framework Directive" Copenhagen, 6 - 9 August 2006*.
37. Jöborn, A., Danielsson, I., Arheimer, B., Jonsson, A., Larsson, M.H., Lundqvist, L.J., Löwgren, M. and Tonderski, K. 2005. Integrated water management for eutrophication control: public participation, pricing policy, and catchment modelling. *Ambio 34(7):482-488*.
38. Kronvang, B., Hejzlar, J., Boers, P., Jensen, J.P., Arheimer, B., Venohr, M., Hoffmann, C.C. and Nielsen, C.B. 2005. EuroHarp NUTRET: A tool to support nutrient retention calculations in river basins. EuroHarp Newsletter No. 4. pp. 3. (EVK1-CT-2001-00096)
39. Beldring, S., Arheimer, B., Jónsdóttir, J.F. and Vehviläinen, B. 2005. Experiences from predictions in ungauged basins (PUB) in the Nordic countries. Norwegian water resources and Energy Directorate (NVE), *NVE Report No.1:2005*, Oslo.
40. Olsson, J., Scholten, H., Arheimer, B., and Andersson, L. 2004. Quality assurance support tool for catchment-based modelling: a test on the HBV-NP model for eutrophication assessment, Proceedings of 8th International Conference on Diffuse/Nonpoint Pollution, 24-29 October, Kyoto, Japan, pp. 241-248.
41. Arheimer, B. and Fogelberg, S. 2004. Modelling daily water flow in the EUROHARP catchments. EuroHarp Newsletter No. 3. pp 7. (EVK1-CT-2001-00096)

42. Fogelberg, S., Arheimer, B., Venohr, M. and Behrendt, H., 2004. Comparison of the HBV-N and MONERIS in Sweden and Germany. EuroHarp Newsletter No. 3. pp.5-6. (EVK1-CT-2001-00096)
43. Arheimer, B., 2004. Modelling Riverine Nutrient Input to the Baltic Sea and Water Quality Measures in Sweden. In: Isemer, H-J. (Ed) Proceedings of the 4th study conference on BALTEX, Gudhjem, Bornholm, 24-28 May 2004. International BALTEX secretariat, Publ. No.29, p.186-187.
44. Beldring, S., Arheimer, B., Finndís Jónsdóttir, J. and Vehviläinen, B. 2004. Prediction in ungauged basins experience from the Nordic countries. In: Järvet, Ä (Ed.) Proceedings of XXIII Nordic Hydrologic Conference, Tallin, 8-12 Aug. 2004. *Nordic Hydrological Programme Reports 48:51-60*, Tartu.
45. Fogelberg, S., Arheimer, B., Venohr, M. and Behrendt, H., 2004. Catchment Modelling of Nitrogen Flow with two Different Conceptual Models. In: Järvet, Ä (Ed.) Proceedings of XXIII Nordic Hydrologic Conference, Tallin, 8-12 Aug. 2004. *Nordic Hydrological Programme Reports 48:149-158*, Tartu.
46. Arheimer, B. and Fogelberg, S. 2004. HBV modelling in several European countries. In: Järvet, Ä (Ed.) Proceedings of XXIII Nordic Hydrologic Conference, Tallin, 8-12 Aug. 2004. *Nordic Hydrological Programme Reports 48:551-557*, Tartu.
47. Arheimer, B., J. Andréasson, S. Fogelberg, H. Johnsson, K. Mårtensson, C. Pers, K. Persson and J. Rosberg, 2004. Climate change impact on water quality - model results from southern Sweden, Proc. of Regional-scale Climate Modelling Workshop, 29 mars - 2 April, 2004 in Lund, *Lund Reports in Physical Geography*, Lund University.
48. Andersson, L., Arheimer, B., Larsson, M., Lindström, G., Olsson, J., Pers, C., Rosberg, J., Tonderski, K. And Ulén, B., 2003. Integrated modelling of phosphorus fluxes at the catchment scale. In: Bruen, M. (Ed.) Proceedings of 7th International Specialised Conference on Diffuse Pollution and Basin Management. International Water Association (IWA). 17-22 Aug., Dublin, pp. 10:85-90.
49. Andersen, H.E., Anthony, S., Arheimer, B., Barr, A., Behrendt, H., Bouraoui, F., Ejhed, H., Groenendijk, P., Jeuken, M., Johnsson, H., Kronvang, B., LeGall, G., Murdoch, A., Lo Porto, A., Price, L., Schoumans, O., Silgram, M., Smit, R., Varanou, E. and Zweynert, U. In: Shoumans, O. and Silgram, M. (Eds.), 2003. Review and literature evaluation of quantification tools of nutrient losses. Norwegian institute for water research (NIVA), EUROHARP Report No. 1., Oslo. 120 p.
50. Venohr, M., Donhue, I., Fogelberg, S., Arheimer, B., Irvine, K., and Behndt, H., 2003. Nitrogen retention in a river system under consideration of the river morphology and occurrence of lakes. In: Bruen, M. (Ed.) Proceedings of 7th International Specialised Conference on Diffuse Pollution and Basin Management. International Water Association (IWA). 17-22 Aug., Dublin, pp. 1:61-67.
51. Arheimer, B. and Olsson, J., 2003. Integration and Coupling of Hydrological Models with Water Quality Models: Applications in Europe. *World Meteorological Organisation, WMO Technical reports in hydrology and water resources, No.75. WMO/TD-No.1174. Geneva.*
52. Olsson, J., Andersson, L., Arheimer, B., Lindström, G., Pers, B.C., and J. Rosberg. 2003. A phosphorus transport model for scenario-based eutrophication assessment in catchments, Proceedings of International Union of Geodesy and Geophysics 2003 General Assembly, June 30-July 11, Sapporo, Japan, B.344.
53. Andersson, L., Arheimer, B., Larsson, M., Olsson, J., Pers, B.C., Rosberg, J., Tonderski, K., and B. Ulén. 2003. HBV-P: a catchment model for phosphorus transport, Proceedings of Quantifying

- the Agricultural Contribution to Eutrophication, COST 832 Final Meeting, 31 July - 2 August, Cambridge, U.K., 59-60.
54. Andersson, L., and Arheimer, B., 2002. Modelling of Regional Changes of Riverine Nitrogen Flow in the Svartå River 1885-1994, In: *Regional Hydrology - Bridging the gap between research and practice, IAHS publ, pp. 373-380.*
 55. Arheimer, B., Danielsson, I., Larsson, M., Lundqvist, L. and Löwgren, M. 2002. The VASTRA tool box for integrated catchment management and effective eutrophication control. Proceedings of International Conference at Stresa, Lago Maggiore, Italy, 26-28 November 2002, Science in Support of European Water Policies: Sustainability of Aquatic Ecosystems. Book of Abstracts, European Commission-Joint Research Center, p. 135.
 56. Arheimer, B., Andersson, L., Hansson, L.A., Jöborn, A., Lindström, G., Olsson, J., and Pers, L., 2002. Modelling diffuse nutrient flow in eutrophication control scenarios. *Proceedings of 6th International Conference on Diffuse Pollution, International Water Association (IWA), Amsterdam, pp 463-470.*
 57. Olsson, J., Andersson, L., Arheimer, B., Hansson, L.A., Johnsson, H., Jöborn, A., Kallner, S., Kyllmar, K., Larsson, M., Leonardsson, L., Lindström, G., Pers, L., Tonderski, K., and Ulén, B., 2002. Catchment modelling of diffuse nutrient transport in VASTRA – Swedish Water Management Research Programme. In *Proceedings of 3rd International Conference on Water Resources and Environmental Research (ICWREER), Deresden 22-25 July 2002: Volume II: Matter and particle transport in surface and subsurface flow. pp. 252-256.*
 58. Bergstrand, M., Brandt, M., Arheimer, B., Grahn, G., Gyllander, A., Pers, C., Svensson, P., Ejhed, H., Johnsson, H., Olsson, K., Mårtensson, K., Löfgren, S., and Westling, O., 2002. TRK-nutrient load in Sweden – an operational system for catchment modelling of nutrient transport, retention and source apportionment. In. Killingtveit, Å. (Ed.) Proceedings of Nordic Hydrological Conference, *Nordic Hydrological Programme (NHP) Report 47(1): 211-220.*
 59. Arheimer, B., 2002. Swedish national report on nutrient loads. In: Lääne, A., Pitkänen, H., Arheimer, B., Behrendt, H., Jarosinski, W., Lucane, S., Pachel, K., Räike, A., Shekhovtsov, A., Svendsen, L.M., and Valatka, S., 2002. Evaluation of the implementation of the 1988 Ministerial Declaration regarding nutrient load reductions in the Baltic Sea catchment area. *The Finnish Environment Institute (FEI), The Finnish Environment Report No. 524. Helsinki. pp 175-189.*
 60. Wittgren, H.B., Arheimer, B. and Tonderski, K., 2002. Kväveavskiljning i våtmarker: Effektivitet och regionala skillnader. *KSLA Tidskrift 141(4):53-62.*
 61. Andersson, L. Arheimer, B. and Persson, K., 2001. Development of HBV-P – a modelling system for phosphorus transport in catchments. In: Haygarth, P.M., Condron, P.J., Butler, P.J. and Crisholm, J.S. (Eds.). Connecting phosphorus transfer from agriculture to impacts in surface waters. Proceedings at the IPTW Workshop, England, 28th Aug.-1st Sept. 2001, Inst. Grassland and Environmental research Report, Plymouth University, p. 104.
 62. Arheimer, B. and Andersson, L., 2001. Landscape wetness and nitrogen transport 1885-1994: Human impact vs. natural variability. In: Mander, U., Printsman, A. and Palang, H. (Eds.). Development of European landscapes. Proceedings at the International Association for Landscape Ecology (IALE) conference in Stockholm and Tartu 30th June – 6th July, 2001. Inst. Geography Report, University of Tartu, p. 641-643.
 63. Arheimer, B., Torstensson, G. and Wittgren, H.B., 2001. Remedial measures for the sea: Constructed wetlands vs. agricultural practices. In: Mander, U., Printsman, A. and Palang, H. (Eds.). Development of European landscapes. Proceedings at the International Association for Landscape Ecology (IALE) conference in Stockholm and Tartu 30th June – 6th July, 2001. Inst. Geography Report, University of Tartu, p. 644-645.

64. Pers, B.C., and Arheimer, B., 2001. A model of biogeochemical processes in lakes to be used in eutrophication management. In: Haygarth, P.M., Condon, P.J., Butler, P.J. and Crisholm, J.S. (Eds.). Connecting phosphorus transfer from agriculture to impacts in surface waters. Proceedings at the IPTW Workshop, England, 28th Aug.-1st Sept. 2001, Inst. Grassland and Environmental research, Plymouth University, p. 92.
65. Andersson, L. and Arheimer, B., 2000. *110-years perspective on nitrogen flow – influence of changed wetness*. In: Proceedings, XXI Nordic Hydrological Conference, NHP Report No. 46, pp 111-120.
66. Pettersson, A., Arheimer, B. and Johansson B., 2000. *Nitrogen transport simulated with HBV-N: Model improvement and calibration strategy*. In: Proceedings, XXI Nordic Hydrological Conference, NHP Report No. 46, pp 393-400.
67. Arheimer, B. and Bergström, S., 1999. Modelling nitrogen transport in Sweden: influence of a new approach to runoff response. In: Heathwaite, L. (Ed.) *Impact of Land-Use Change on Nutrient Loads from Diffuse Sources. International Association of Hydrological Sciences, IAHS Publication No. 257*.
68. Arheimer, B., Brandt, M. and Pettersson, A., 1999. Catchment modelling of nitrogen transport in Sweden and the Baltic region. In: *Journal of Conference Abstracts. European Union of Geosciences, EUG10, March 28th April 1st, 1999, Strasbourg, France. Vol.4(1):562. Cambridge Publications*.
69. Brandt, M. and Arheimer, B., 1998. Nitrogen transport to the sea from southern Sweden – catchment modelling, retention, and source apportionment. In Kajander, J. (Ed.), Proceedings of Nordic Hydrological Conference, Helsinki, Finland, 10-13 Aug. 1998, *Nordic Association or Hydrology, NHP Report No. 44:13-20*.
70. Arheimer, B., 1997. Three different CPR management models for riverine nitrogen pollutants in Sweden. In Karlsson, S. (Ed.) *Managing common resources in local and global systems – applying theory across scales. EPOS, Research Program on Environmental Policy and Society, Institute of Tema Research, Linköping University, Report 9:33-51*.
71. Arheimer, B., Brandt, B., Grahn, G., Roos, E. and Sjöö, A., 1997. Modelled nitrogen transport, retention, and source apportionment for the south of Sweden. *Swedish Meteorological and Hydrological Institute, SMHI Report RH No. 13. pp.78. (in Swedish with English summary)*
72. Marmefelt, E., Arheimer, B. and Langner, J., 1997. An integrated biogeochemical model system for the Baltic sea - a pilot study. In: *With rivers to the sea. Interactions of land activities, fresh water and enclosed coastal seas. Proceedings from the joint conference of 7th Stockholm Water Symposium and 3rd international conference on the environmental management of coastal seas (EMECS), 10-15 Aug. 1997, Stockholm, Sweden, p.101-103.*
73. Arheimer, B., 1996. Nutrient loss models - Sweden. In: Larsen, S. E. (Ed.) *Empirical non-point nutrient loss models. Nordic Council of Ministers, Copenhagen, TemaNord 1996(522):41-42*.
74. Andersson, L., Arheimer, B., Sundblad, K. and Lepistö A., 1993. Temporal and spatial variability of nitrogen flow from small forested basins. In Seuna, P. Gustard, A. Arnell N. W. and Cole, G. A. (Eds.): *FRIEND: Flow regimes from international experimental and network data. International Association of Hydrological Sciences, IAHS Publications No. 221:399-408*.
75. Arheimer, B., Andersson L. and Lepistö, A., 1993. Influences of flow dynamics on nitrate concentrations in forest streams. In: *Proceedings 4th International Conference on a System Analysis Approach to Environment, Energy and Natural Resource Management in the Baltic Region. Nordic Council of Ministers 1993(653):375-384*.
76. Arheimer, B. and Linderson, M-L., 1992. Landscape analyses in the Andes of Venezuela. Estimation of soil erosion and land-use capacity as a part of an integrated project. *University of*

Lund, departement of Physical Geography, Rapport & Notiser No.76. pp.46. (In Swedish with English summary)

77. Arheimer, B., 1991. Nutrient leakage from arable land in the Bråån basin. Localization and control plan. *University of Lund, Departement of Physical Geography, Report No 20. pp.45.* (In Swedish with English abstract)
78. Arheimer, B. and Linderson, M-L., 1991. Inventario del Paisaje en los Andes Venezolanos. Evaluación de la Erosión y de la Capacidad de Uso Agripecuario en un Proyecto Integrado. *Swedish University of Agriculture, IRDC Work Report No 164. pp. 50.* (In Spanish with English summary)
79. Arheimer, B. and Linderson, M-L., 1990. Erosion study within an integrated project - experiences from Venezuela. *Svensk Geografisk Årsbok, 66:128-139.* (In Swedish with English abstract)

Popular Scientific Articles and Reports

1. Isberg, K., Arheimer, B. and Donnelly, C., 2012. Hydrological Model for Water Management and Implementation for European Directives. Från publikationen "The growing use of GMES across Europe's regions" by NEREUS and ESA.
2. Alkan-Olsson, J. Andersson, L., Jonsson, A., Arheimer, B. 2009. Lokal åtgärdsplan mot övergödning i Kagebofjärden med tillrinningsområde. Rapport Länsstyrelsen i Östergötland, 2009:3. ISBN 978-91-7488-231-5.
3. Alkan Olsson, J., Jonsson, A., Andersson, A. and Arheimer, B., 2008. Från Vattendragsgrupp till åtgärdsplan mot övergödning. LRF, LU, LiU, SMHI. Broschyr. 8 sid.
4. Andersson, L., Arheimer, B., Kallner Bastviken, S., Johnsson, H., Kyllmar, K., Larsson, M., Pers, C., Rosberg, J., Ståhl-Deblanco, A., & Tonderski, K. 2006. VASTRA-modeller i planeringscykeln. In: Ed: Jöborn, A., Danielsson, I. & Oscarsson, H. VASTRA Rapport 6: På tal om vatten – om vägen mot en hållbar vattensursförvaltning. pp. 149-188.
5. Arheimer, B. 2004. Vattenkvalitet i ett framtida klimat. VASTRAS årsrapport 2003. Ekblad & Co, Västervik. pp. 23-26.
6. Arheimer, B. 2004. Dämpas höga vattenflöden av anlagda våtmarker? VASTRAS årsrapport 2003. Ekblad & Co, Västervik. pp. 21-22.
7. Arheimer, B. 2003. VASTRAS pilotområde Rönne å. VASTRAS årsrapport 2002. Ekblad & Co, Västervik. p. 16.
8. Arheimer, B. och Larsson, M. 2003. Modellering av fosfortransport – en tuff men nödvändig utmaning inom VASTRA. VASTRAS årsrapport 2002. Ekblad & Co, Västervik. p. 5-9.
9. Jöborn, A., Larsson, M. och Arheimer, B. 2003. VASTRA-fokus på fosfor. Svenskt Vatten, Nr. 1 feb. 2003. pp. 6-7.
10. Arheimer, B. and Bergström, S. 2002. Våtmarkers påverkan på vattenbalansen och storskaliga flöden. In: Tonderski, K., Weisner, S., Landin, J., Oscarsson, H. (Eds.): *Våtmarksboken – skapande och nyttjande av värdefulla våtmarker.* AB C O Ekblad & Co., Västervik, ISBN: 91-631-2737-7. pp. 23-30.
11. Arheimer, B., 1999. Kväve från land till Västerhav. Havsmiljön – aktuell rapport om miljötillståndet i Kattegatt, Skagerrak och Öresund. *Kontaktgrupp Hav 1999.*

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/>