

## ONGOING PUBLICATIONS

- **Shafii, M.**, Basu, N., Craig, J., Macrae, M.L., Schiff, S., Van Cappellen, P., 2017, “Can Improved Flow Partitioning in Hydrologic Models Increase Biogeochemical Predictability?” WRR, in review.
- **Shafii, M.**, et al., 2017, “Towards hydrological consistency in hydrological modelling: Using snow water equivalent signatures extracted from satellite images”, In Preparation.
- **Shafii, M.**, et al., 2017, “Impacts of climate change on nitrogen export in the Grand River Watershed of southwestern Ontario: insights from a process-based model”, In Preparation.

## RECENT PEER-REVIEWED JOURNAL PUBLICATIONS

- **Shafii, M.**, Basu, N., Craig, J.R., Schiff, S.L. and Van Cappellen, P. (2017), A diagnostic approach to constraining flow partitioning in hydrologic models using a multi-objective optimization framework, *Water Resources Research*, Accepted, doi:10.1002/2016WR019736
- Liu, H., B. A. Tolson, J. R. Craig, and **M. Shafii** (2016), A priori discretization error metrics for distributed hydrologic modeling applications, *Journal of Hydrology*, 543, Part B, 873-891
- **Shafii, M.**, and Tolson, B.A., 2015, “Optimizing Hydrological Consistency by Incorporating Hydrological Signatures into Model Calibration Objectives”, *Water Resources Research*, 51(5), 3796-3814, doi: 10.1002/2014wr016520.
- **Shafii, M.**, Tolson, B.A., and Matott, L.S., 2015, “Improving the Efficiency of Monte Carlo Bayesian Calibration of Hydrologic Models via Model Pre-emption”, *Tech. Note in J. of Hydroinformatics*, IN PRESS, doi:10.2166/hydro.2015.043.
- **Shafii, M.**, Tolson, B.A., and Matott, L.S., 2015, “Addressing Subjective Decision-Making Inherent in GLUE-based Multi-Criteria Rainfall-Runoff Model Calibration”, *J. of Hydrology*, 523(0), 693-705, doi:10.1016/j.jhydrol.2015.01.051.
- **Shafii, M.**, Tolson, B.A., and Matott, L.S., 2014, “Uncertainty-based multi-criteria calibration of rainfall-runoff models: A comparative study”, *Stoch. Environ. Resour. Risk. Assess.*, 28(6), 1493-1510, doi: 10.1007/s00477-014-0855-x.

## RECENT CONFERENCE PROCEEDINGS/PRESENTATIONS

- **Shafii, M.**, Basu, N., Schiff, S.L., Van Cappellen, P., Climatic and physiographic controls on catchment-scale nitrate loss at different spatial scales: insights from a top-down model development approach, Poster at European Geosciences Union (EGU) General Assembly, Vienna, Austria, April 17-22, 2016
- **Shafii, M.**, Basu, N., Craig, J., Schiff, S.L., Van Cappellen, P., and Dürr, H.H., 2015, “Assessment of Hydrological Behaviour of a Snowmelt-Dominated Catchment at Different Scales”, Presentation at 2015 Joint Assembly (AGU-GAC-MAC-CG), May 3-7, Montreal, Canada.
- **Shafii, M.**, Basu, N., Craig, J., 2015, “Interactive model evaluation and selection via an optimization-based top-down approach using hydrological signatures”, Presentation at European Geosciences Union (EGU) General Assembly, Vienna, Austria, April 13-17, 2015.

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