

## HONGYI LI

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## EDUCATION AND TRAINING

2010 Ph.D., Hydrology & Water Resources, University of Illinois at Urban-Champaign  
2003 M.S., Hydrology & Water Resources, Tsinghua University  
2000 B.E., Hydraulic & Construction Engineering, Tsinghua University

## RESEARCH AND PROFESSIONAL EXPERIENCE

2011-present, **Research Scientist**, Pacific Northwest National Lab, Richland, WA. *Lead developer of a large-scale river transport model coupled with their Community Land Model to be applied across watershed, regional and global scales.*  
2010-2011, **Research Associate**, Pacific Northwest National Lab. *Evaluation of runoff generation processes representation/parameterization in the Community Land Model and the impacts on water and energy cycles.*  
2005-2010, **Research Assistant**, University of Illinois at Urbana-Champaign. *Watershed-scale modeling of rainfall-runoff processes and coupled hydrology-biogeochemistry processes at hillslopes and through river channels.*

## SELECTED PUBLICATIONS

- **Li H\***, L. R. Leung, A. C. V. Getirana, M. Huang, H. Wu, Y. Xu, J. Guo and N. Voisin (2014), Evaluating Global Streamflow Simulations by a Physically-based Routing Model Coupled with the Community Land Model, *J. of Hydromet.*, Accepted.
- **Li H\***, M Sivapalan, F Tian, and C Harman (2014), Functional approach to exploring climatic and landscape controls of runoff generation. 1. Behavioral constraints on runoff volume, *Water Resour. Res.*, accepted, doi: 10.1002/2014WR016307.
- **Li H\***, and M Sivapalan (2014), Functional approach to exploring climatic and landscape controls on runoff generation. 2. Timing of runoff storm response, *Water Resour. Res.*, accepted, doi: 10.1002/2014WR016308.
- Ye S, **H Li**, M Huang, M Ali, G Leng, LYR Leung, S Wang, and M Sivapalan\* (2014), Subsurface Stormflow Parameterization for Land Surface Models: Derivation from Regional Analysis of Streamflow Recession Curves, *J. of Hydrology*, 519, 670-682.
- Tesfa, T. K., **H. Li\***, L. R. Leung, M. Huang, Y. Ke, Y. Sun and Y. Liu (2014), A subbasin-based framework to represent land surface processes in an earth system model, *Geosci. Model Dev.*, 7(3), 947-963, 2014
- Guo, J., **H. Li\***, L. R. Leung, S. Guo, P. Liu, and M. Sivapalan (2014), Links between flood frequency and annual water balance behaviors: A basis for similarity and regionalization, *Water Resour. Res.*, 50, doi:10.1002/2013WR014374.
- Voisin, N\*, **H Li**, DL Ward, M Huang, MS Wigmosta, and LYR Leung (2013), On an improved sub-regional water resources management representation for integration into earth system models, *Hydro. and Earth Sys. Sci.*, 17(9):3605-3622. doi:10.5194/hess-17-3605-2013
- **Li, H.\***, M. S. Wigmosta, H. Wu, M. Huang, Y. Ke, A. M. Coleman, and L. R. Leung (2013), A physically based runoff routing model for land surface and earth system models, *J. of Hydromet.*, 14(3):808-828. doi:10.1175/JHM-D-12-015.1
- **Li, H.\***, M. Sivapalan and F. Tian (2012), A Comparative Diagnostic Study of Runoff Generation Patterns in DMIP2 Basins: Blue River and Illinois River, *J. of Hydrology*, 418/419, 90-109.

- Tian, F.\*, **H. Li** and M. Sivapalan (2012), Switching Pattern of Runoff Generation in Blue River Basin, *J. of Hydrology*, 418/419, 136-149.
- **Li, H.**, M. Huang\*, M. S. Wigmosta, Y. Ke, A. M. Coleman and L.Y. R. Leung (2011), Evaluating runoff simulations from the Community Land Model 4.0 using observations from flux towers and a mountainous watershed, *J. Geo. Res. Atmosphere*, 116, D24, doi:10.1029/2011JD016276, 2011
- **Li, H.\*** and M. Sivapalan (2011), Effect of Spatial Heterogeneity of Runoff Generation Mechanisms on the Scaling Behavior of Event Runoff Responses in a Natural River Basin, *Water Res. Res.*, 47: W00H08. doi: 10.1029/2010WR009712
- **Li, H.\***, M. Sivapalan, P. Kalita, F. Tian and D. Liu (2010), Water and nutrient balances in a large tile-drained agricultural catchment: a distributed modeling study, *Hydro. and Earth Sys. Sci.*, 14:2259-2275. doi:10.5194/hess-14-2259-2010

#### **SYNERGISTIC ACTIVITIES**

- Chair, IAHS working group on “Changing biogeochemistry of aquatic systems in the Anthropocene”, 2014
- Lead guest editor, special issue on “Catchment Co-evolution: Space-Time Patterns and Functional Controls” in *Hydro. and Earth Sys. Sci.*, 2014-2015
- Member, American Geophysical Union, European Geophysical Union, CESM Land Model Working Group, International Association of Hydrologic Sciences
- Outstanding performance award, 2011, 2012, Energy and Environment Directorate, PNNL