
**Presented By:**
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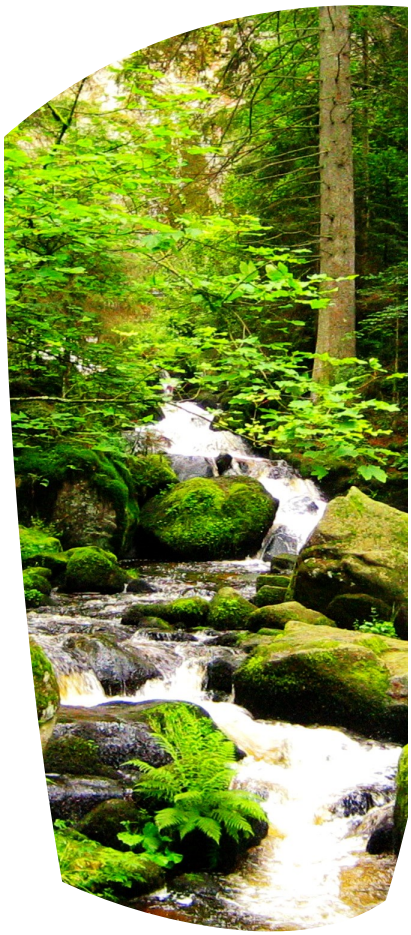
UCI Samueli School of Engineering | Department of Civil and Environmental Engineering

# Environmental Engineering Seminar

***Friday, February 24th, 2017***
***McDonnell Douglas Engineering Auditorium (MDEA)***
***1:30PM - 2:30PM***

## *Towards Improved Hydrologic Prediction Using Integrated Land Surface-Groundwater Models*




Increases in greenhouse gas concentrations are expected to impact the terrestrial hydrologic cycle through changes in radiative forcings and plant physiological and structural responses. As a result, projections of future changes in water resources become complicated due to the tight coupling between the biosphere and terrestrial hydrologic cycle. In recent years a number of physically based integrated hydrologic models are developed to simulate terrestrial hydrologic processes from atmosphere to the land surface and subsurface. Despite their complex structure, integrated hydrologic model predictions suffer from the same elements of uncertainty in hydrologic modeling. In the first part of this talk, I will discuss the issue of uncertainty in model initialization in integrated hydrologic model predictions by presenting case studies from catchments in Denmark and Australia. In the second part, I will discuss development of a computationally efficient modeling toolkit (SMART) for large scale hydrologic predictions.


Dr Hoori Ajami is an Assistant Professor of Groundwater Hydrology in the Department of Environmental Sciences, University of California Riverside. She received her PhD in Hydrology from University of Arizona and her BSc and MSc in Environmental Sciences from Isfahan University of Technology and Tehran University in Iran respectively. Prior to joining UCR, she was a post-doctoral fellow with the National Centre for Groundwater Research and Training in Australia and a Senior Research Associate at the University of New South Wales in Sydney, Australia. Her research interests are in the areas of catchment hydrology, surface water-groundwater interactions, and integrated land surface–groundwater modeling.

Questions? - cee@uci.edu - (949) 824-5333