

URBAN GREEN INFRASTRUCTURE SUMMIT

Attendee Bio Form

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Title: Professor of Geography

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Institution Type: Higher Education

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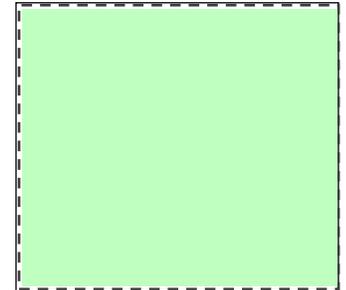
Email: changh@pdx.edu

Website: <https://www.pdx.edu/geography/hydrology-and-water-resources>

Education: **Ph.D.:** Pennsylvania State University

MS: Seoul National University

BS: Seoul National University



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Which platforms do you use (select all that apply):

Slack Trello Base Camp One Drive Google Drive Drop Box

Short Bio:

My research and teaching interests lie in the human modifications of the hydrologic system. I examine the complex interactions among climate change, land use change, and water management that drive major changes in water quantity, quality, demand, hydrologic extremes, and water related ecosystem services across scales. To understand and model such a complex system, I use an integrated approach that embraces biophysical sciences, social sciences, and information sciences. The use of geographic information technology including geocomputational methods and visual spatial analysis is essential to conduct my research and teaching.

What are the greatest urban environmental challenges in your discipline/area of expertise?

How do we sustain urban water resilience in the face of climate change and population growth?

What are the major knowledge gaps/scientific questions that need to be answered to address these environmental challenges?

1. How do different types of urban green infrastructure affect streamflow and quality under different storm characteristics and climate regimes?
2. How does the spatial distribution of green storm infrastructure (GSI) affect storm runoff amount and quality over time?
3. What benefits are provided by GSI in an urban environment?
4. What are potential tradeoffs among different types of GI in an urban environment?

What types of green infrastructure do you have experience with and/or study?

Detention/retention pond
Bioswales
Floodplain restoration

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