

Peter Kyungchul Kang

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Graduate Institution: Massachusetts Institute of Technology (MIT)

Location: Cambridge, MA

Graduate Discipline: Hydrology and Hydroclimatology

Hometown: Princeton, NJ (Grew up in Seoul, Korea)

Research Interests:

- *Flow and transport through fractured and heterogeneous porous media*
- *Anomalous and non-Fickian transport*
- *Groundwater-land-surface-atmosphere interaction*
- *Impact of climate change on water resources*

About me:

I am a second year MS/PhD student at MIT in the Department of Civil and Environmental Engineering. I am in the process of developing a stochastic framework for anomalous transport through fractured porous media. The model to be developed will accurately capture anomalous transport and, most importantly, have just a few parameters that can be obtained from geologic measurements. As a result, these models provide a new avenue for joint inversion of flow and geophysical properties of fractured reservoirs.

I am also interested in groundwater-land-surface-atmosphere interaction. My idea is to develop an idealized model to understand physics and dynamics behind groundwater-land-surface-atmosphere interaction. If successful, this model can explain impact of climate change on water resources, importance of land surface on water cycle, role of groundwater on precipitation persistence and so on.

I eventually want to devote myself to explaining the importance of preserving the environment to the general public and policy makers. Man is not the owner of this beautiful planet, and should not manipulate natural resources without careful planning and responsibility. I hope that my scientific work can help emphasize this point.

In my personal life, I love spending time with my friends and family. I enjoy playing sports (basketball, swimming, Frisbee, tennis, golf), watching movies, reading books, discovering and exploring good food, and discussing what life is!



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