Seongmin Hong

smhongok@snu.ac.kr · smhongok.github.io · linkedin.com/in/sm-hong

I'm a Ph.D. candidate in ECE SNU, interested in the inversion of generative models and computational imaging.

Education

Ph.D. in Electrical and Computer Engineering – Seoul National University 03 2020 — 02 2026 (expected)
Advisor: Se Young Chun

B.S. in Electrical and Computer Engineering – Seoul National University 03 2016 — 02 2020

Mathematics and Physics – Gyeonggi Science High School for the Gifted 03 2013 — 02 2016

Publications (selected, first author)

On the Robustness of Normalizing Flows for Inverse Problems in Imaging
Seongmin Hong, Inbum Park, Se Young Chun
International Conference on Computer Vision (**ICCV**), 2023.

Neural Diffeomorphic Non-uniform B-spline Flows
Seongmin Hong, Se Young Chun
Thirty-Seventh AAAI Conference on Artificial Intelligence (**AAAI**), 2023.

Advanced direction of arrival estimation using step-learnt iterative soft-thresholding for frequency-modulated continuous wave multiple-input multiple-output radar
Seongmin Hong, Seong-Cheol Kim, Seongwook Lee
IET Radar, Sonar & Navigation, 2023.

Radar Signal Decomposition in Steering Vector Space for Multi-Target Classification
Seongmin Hong, Seongwook Lee, Byeong-Ho Lee, Jinwook Kim, Yong-Hwa Kim, Seong-Cheol Kim
IEEE Sensors Journal, 2021.

Preprints (selected, first author)

On Exact Inversion of DPM-Solvers
Seongmin Hong, Kyeonghyun Lee, Suh Yoon Jeon, Hyewon Bae, Se Young Chun
arXiv:2311.18387, 2023.

Invited Talks

On the Robustness of Normalizing Flows for Inverse Problems in Imaging (upcoming)
In 2024 SIAM Conference on Imaging Science Minisymposium: Recent Strides in Deep Inverse Problems: From PDEs/ODEs, Neural Implicit Representations, and Beyond.

Services

Technical Research Personnel[1] in SNU (Alternative military service) 03 2023 – 02 2025

Technical Research Personnel[2] in a designated company or research institute 03 2026 – 02 2027 (expected)

Journal reviewers: IEEE Sensors Journal 2023

[1]The technical research personnel system is a form of alternative military service that enables companies (research institutes) designated by the commissioner of the Military Manpower Administration to utilize research personnel for the advancement of science and technology in Korea.

[2]In my case, I am required to serve in the designated company (or research institute) for one year starting from March 2026 to fulfill my military service obligations.