Seongmin Hong

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I'm a Ph.D. candidate in ICL @ ECE, SNU, interested in the inversion of recent generative models and computational imaging systems such as automotive radar.

Education

Ph.D. in Electrical and Computer Engineering – Seoul National University Advisor: Se Young Chun	03 2020 — 08 2025 (expected)
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)

Adaptive Selection of Sampling-Reconstruction in Fourier Compressed Sensing

Seongmin Hong, Jaehyeok Bae, Jongho Lee, Se Young Chun

Accepted to European Conference on Computer Vision (ECCV), 2024.

On Exact Inversion of DPM-Solvers

Seongmin Hong, Kyeonghyun Lee, Suh Yoon Jeon, Hyewon Bae, Se Young Chun Conference on Computer Vision and Pattern Recognition (**CVPR**), 2024.

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, oral), 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.

Presentations

On the Robustness of Normalizing Flows for Inverse Problems in Imaging

In 2024 SIAM Conference on Imaging Science (SIAM IS24), Atlanta, Georgia, U.S., May 28-31, 2024

Teaching Experience

Head TA, Signals and Systems (English Lecture)	03 2022 – 06 2022
Head TA, Seminar in Electrical and Computer Engineering 3	03 2020 - 06 2020
TA, Advanced Electromagnetics 1	03 2020 – 06 2020
Scholarship	
Brain Korea 21 Four Program	03 2020 – Present
Services	
Technical Research Personnel ¹ in SNU (Alternative military service)	03 2023 - 02 2025

¹The 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.

Technical Research Personnel² in a designated company or research institute 09 2025 – 08 2026 (expected)

Journal reviewers: IEEE Sensors Journal 2023

²In my case, I am required to serve in the designated company (or research institute) for one year starting from September 2025 to fulfill my military service obligations.