



Welcome to the

Workshop on Near-Field Communications with KVA-JSPS Seminar





Director: Emil Björnson, Professor of Wireless Communication, KTH

















First Wireless Innovation Workshop: January 28, 2025

Agenda

9:00: Welcome address, Emil Björnson, Center Director. 🔀 Slides (pdf 2.1 MB)

9:15: Keynote by Stefan Parkvall, Ericsson, "The road to 6G – wireless communication in the 2030s". Slides (pdf 573 kB)

10:00: Coffee break

10:30: Mohammad Azimi Abarghouei: Over-the-air Federated Learning. Slides (pdf 1.6 MB)

10:45: Parisa Ramezani: A Novel Hybrid Precoder With Low-Resolution Phase Shifters and Fronthaul Capacity Limitation. Slides (pdf 421 kB)

11:00: Oskar Zetterström: Additively manufactured lens antennas for mm-wave frequencies.

11:30: Zinat Behdad: Integrated Sensing and Communications in Cell-Free Massive MIMO. Slides (pdf 1.1 MB)

11:45: Sepideh Pashami: Machine Learning with Robustness Adversarial Attacks.







The seven invited speakers at the workshop: Sepideh, Oskar, Steven, Stefan, Mohammad, Parisa, and Zinat



Stefan Parkvall from Ericsson aives his keynote on the 6G development

78 attendees!

Today's Agenda





9:00: Welcome address, Emil Björnson, SweWIN Center Director.

9:05: Presentation on JSPS international programs, Prof. Tetsuya Mizumoto, Executive Director, JSPS Tokyo HQ

9:15: **KVA-JSPS Seminar** by **Prof. Koji Ishibashi**, University of Electro-Communications, Tokyo, Japan **Title:** *Enabling Near-Field Communications: Beam Shaping, Optimization, and Channel/Data Estimation*

10:15: Coffee break

10:45: Mingzheng Chen: Generation of Wideband Quasi-Nondiffracting Beams Using Radial GRIN Lenses for Near-Field Applications

11:00: Parisa Ramezani: Near-field Communication and Localization in the Upper Mid-Band Spectrum

11:15: Sajad Daei: When Near Becomes Super Far: From Rayleigh to Optimal NF–FF Boundaries

11:30: Panel discussion. Panelists: Koji Ishibashi, Erik Dahlman, Emil Björnson. Moderator: Ferdi Kara.