



Samuel Beuret

Postdoctoral Scholar, Radiology

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BIO

I received the B.Sc., M.Sc., and Ph.D. degrees in Electrical Engineering from the École Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland, in 2016, 2019, and 2024, respectively. After working as an Ultrasound Engineer at E-Scopics, Aix-en-Provence, France, I joined the Ultrasound Imaging and Instrumentation Lab of the Department of Radiology as a Postdoctoral Scholar in 2025. My research interests include signal processing, inverse problems, and probabilistic modeling applied to pulse-echo ultrasound imaging. My current work focuses on improving pulse-echo speed-of-sound imaging and distributed aberration correction.

STANFORD ADVISORS

- Jeremy Dahl, Postdoctoral Faculty Sponsor

Publications

PUBLICATIONS

- **A Refraction-Aware Pulse-Echo Speed-of-Sound Imaging Method for Convex Transducers**
Beuret, S., Besson, A., Heriard-Dubreuil, B., Cohen-Bacrie, C., IEEE
IEEE.2025
- **Inverse Problem for Joint Deconvolution, Despeckling, and Source Separation in B-Mode Ultrasound**
Beuret, S., Besson, A., Heriard-Dubreuil, B., Cohen-Bacrie, C., IEEE
IEEE.2025
- **Windowed Radon Transform for Robust Speed-of-Sound Imaging With Pulse-Echo Ultrasound** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Beuret, S., Heriard-Dubreuil, B., Martiartu, N., Jaeger, M., Thiran, J.
2024; 43 (4): 1579-1593
- **An Inverse-Problem Approach to the Estimation of Despeckled and Deconvolved Images From Radio-Frequency Signals in Pulse-Echo Ultrasound** *IEEE TRANSACTIONS ON COMPUTATIONAL IMAGING*
Beuret, S., Besson, A., Sugimoto, A., Thiran, J.
2024; 10: 1191-1206
- **Windowed Radon Transform and Tensor Rank-1 Decomposition for Adaptive Beamforming in Ultrafast Ultrasound** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Beuret, S., Thiran, J.
2024; 43 (1): 135-148
- **Using Windowed Radon Transform to Measure Local Coherence Independently of Speed-of-Sound Variations in Plane-Wave Imaging**
Beuret, S., Thiran, J., IEEE

