Department of Electrical Engineering
Technion—Israel Institute of Technology
Signal Acquisition Modeling and Processing Lab - המעבדה לאות מידול ועיבוד אותות

NEW

Super-resolution ultrasound scans of moving microvasculature

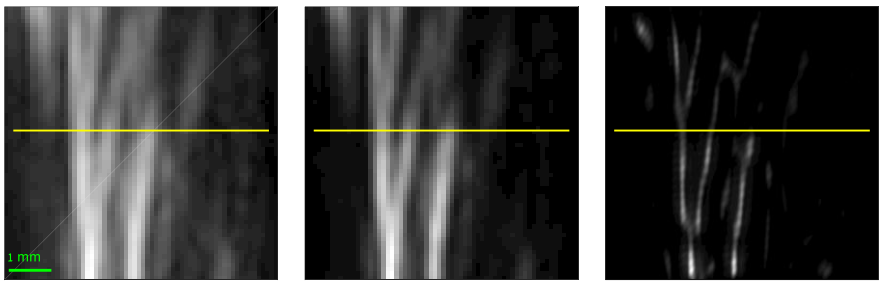
Supervisor: Oren Solomon

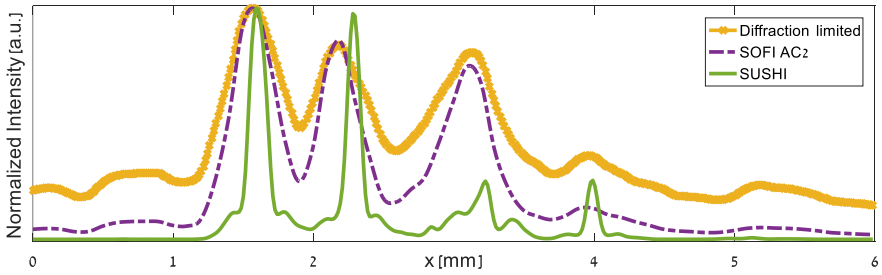
Project description:

A new method developed in the SAMPL lab has achieved sub-diffraction resolution in contrast enhanced ultrasound scans with a very fast acquisition rate. Such a method allows for real-time scanning of the micro-vasculature of moving organs such as the heart or kidney, which until recently was considered impossible.

In this project, we will investigate the application of the method on real clinical data to see if such a method can lead to new diagnosis of patients.

This project is performed as part of a collaboration with Ichilov hospital.





Tel-Aviv Sourasky Medical Center

Required background: Signal and systems, Mavlas, Mavla.

Environment: Matlab.

For further details, please contact Oren: orensol@campus