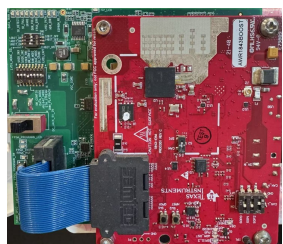
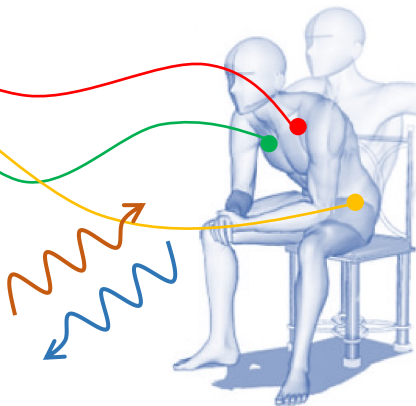




ECG Monitor



TI-AWR 1843
77-81GHz with Tx2Rx4



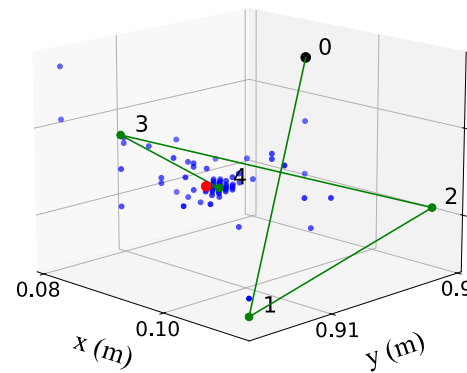
Subject with Random
Body Position

Format Radar Signal to
the Data Matrix

Provide Initial State
for CFT

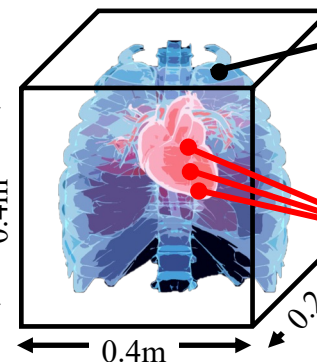
(b) Cardio-Focusing and -Tracking (CFT) Algorithm

● Initial State ● CF Point ● Incumbents ● Evaluated Points

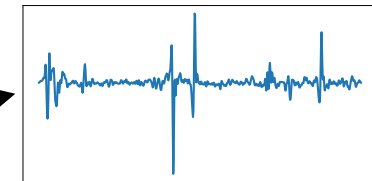


Search for Cardio-Focused (CF) point

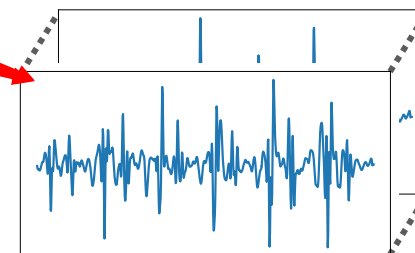
Derivative-Free
Optimization



Search Space



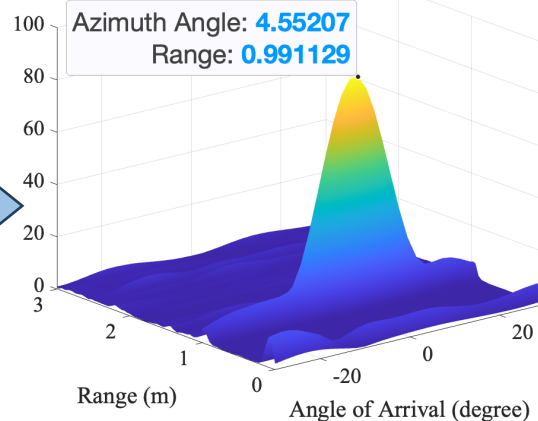
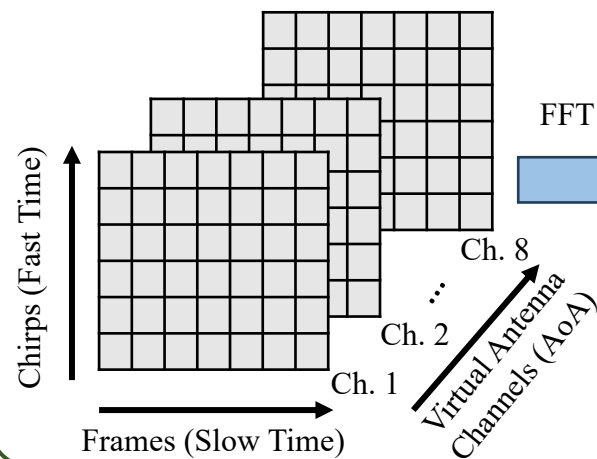
Low-SNR Signals



High-SNR Signals

Convert to
Spectrogram

(a) Rough Localization



Object Detection

(c) Transfer Learning

