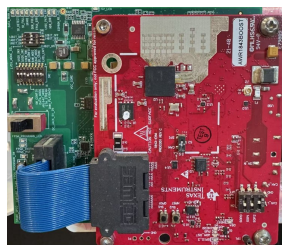
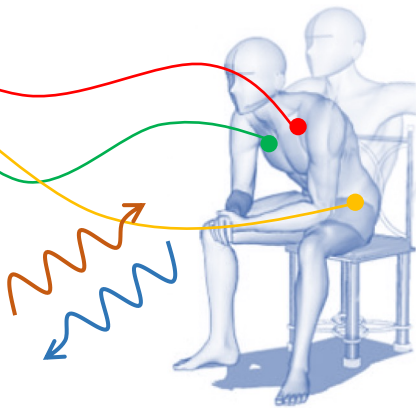




ECG Monitor



TI-AWR 1843  
77-81GHz with Tx2Rx4



Subject with Random  
Body Position

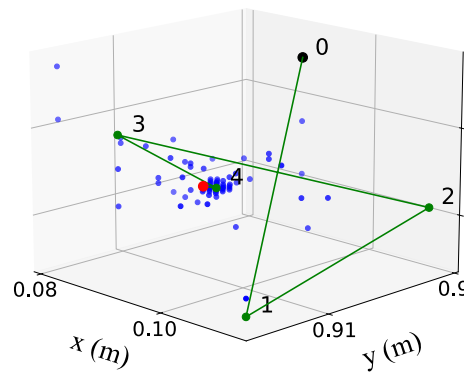
Format Radar Signal to  
the Data Matrix

Provide Initial State  
for CFT

Convert to  
Spectrogram

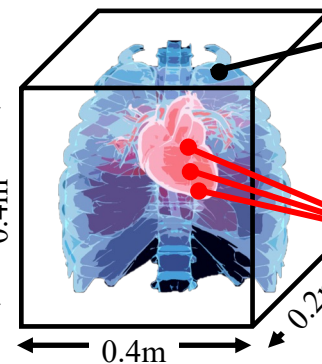
## (b) Cardio-Focusing and -Tracking (CFT) Algorithm

● Initial State ● CF Point ● Incumbents ● Evaluated Points

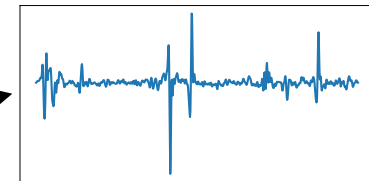


Search for Cardio-Focused (CF) point

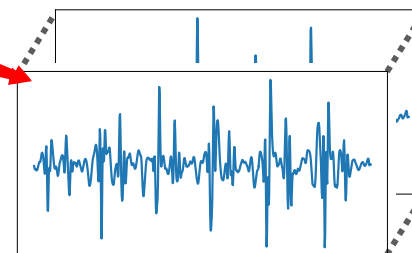
Derivative-Free  
Optimization



Search Space

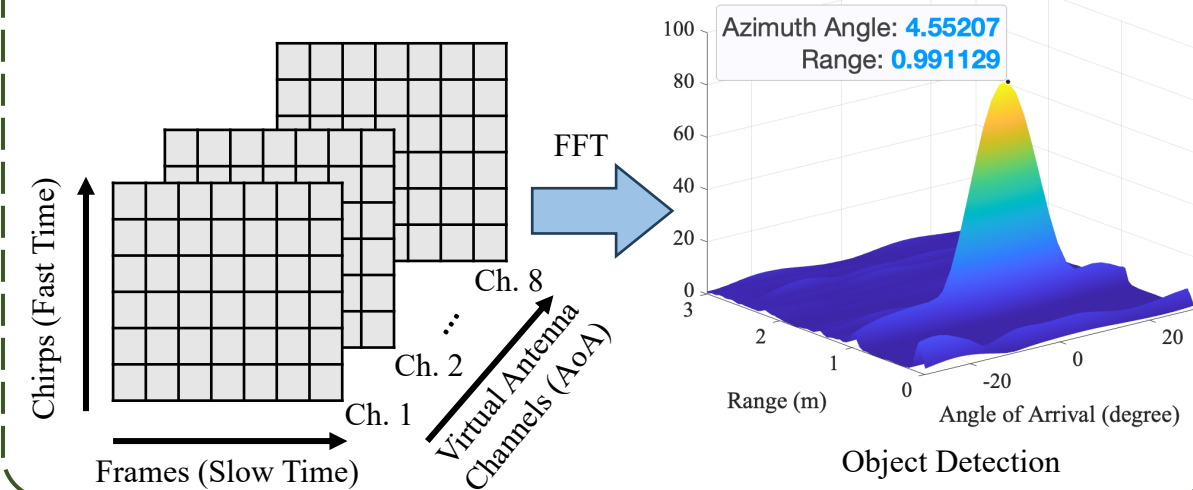


Low-SNR Signals

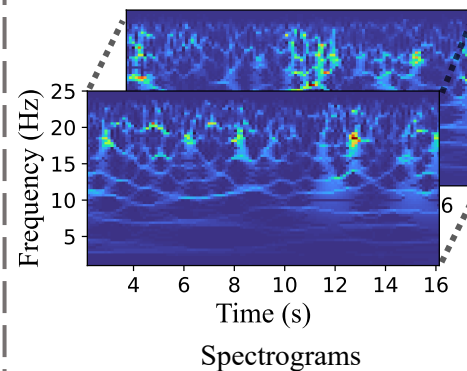


High-SNR Signals

## (a) Rough Localization



## (c) Transfer Learning



Deep learning  
Model

ECG Outputs