1. Run maingetCSI.m first to refine the measured CSI

Fig. 1 & 2 show the magnitude and phase of the collected CSI for the first dataset with time series. For example, the data collected in at 21:49, Jan 16 lasted for 100s, starting with 270 degree, so we have 5 cycles (the antenna has rotated for 5 cycles). Since we might have a delay between the CSI output and the angle reading, the data of the first cycle might be inaccurate, so we abandon it and only extract the remaining CSI for future use.

We then separate CSI among multiple cycles, and plot the magnitude of the separated CSI in Fig. 3, please check Fig. 3 and make sure the CSI is stable. The below CSI is stable since we can see that the CSI of remaining 4 cycles are pretty much similar.



We then take the average of CSI over 25 subcarriers and multiple cycles, and save it for AoD estimation.

1. Run mainAoD.m to get the AoD ground truth and estimation, parameter numSamples is tunable.