

Assignment 8

In this assignment, we were required to use the delay and sum algorithm for obstacle detection using a source and an array of mics. The following outputs were generated for various values of `Nmics` and `Nsamples`

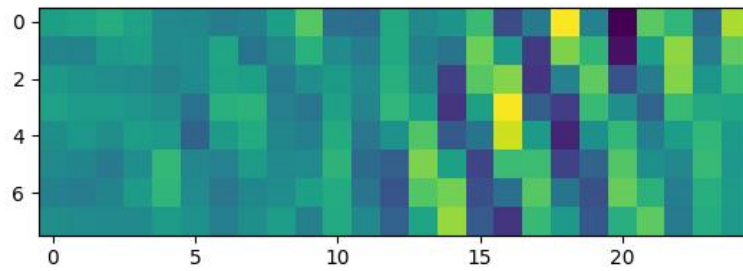


Figure 1: Heatmap obtained for $N_{\text{mics}} = 8$, $N_{\text{samples}} = 50$

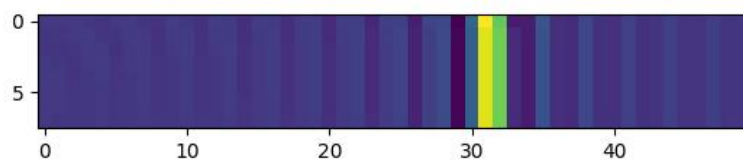


Figure 2: Heatmap obtained for $N_{\text{mics}} = 8$, $N_{\text{samples}} = 100$

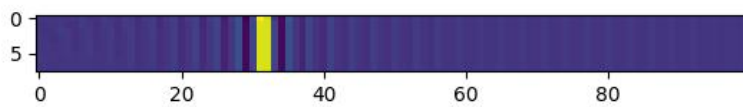


Figure 3: Heatmap obtained for $N_{mics} = 8$, $N_{samples} = 200$

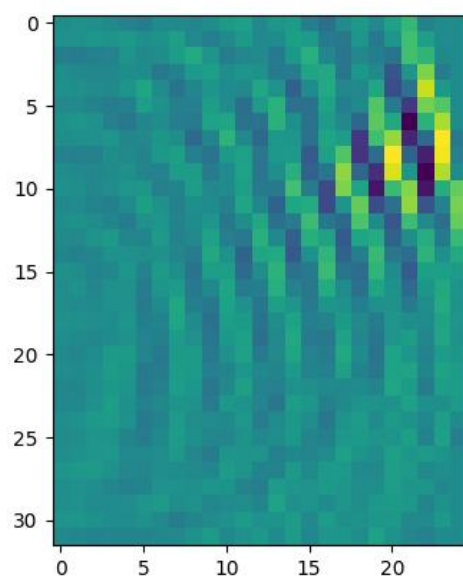


Figure 4: Heatmap obtained for $N_{\text{mics}} = 32$, $N_{\text{samples}} = 50$

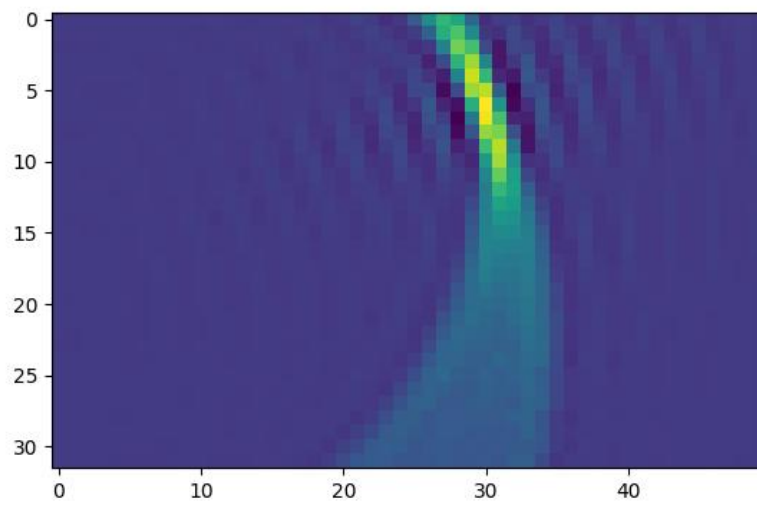


Figure 5: Heatmap obtained for $N_{mics} = 32$, $N_{samples} = 100$

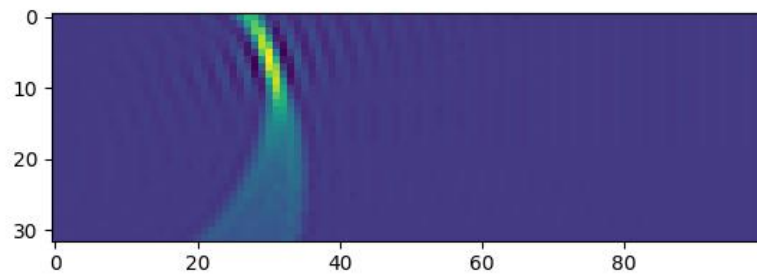


Figure 6: Heatmap obtained for $N_{mics} = 32$, $N_{samples} = 200$

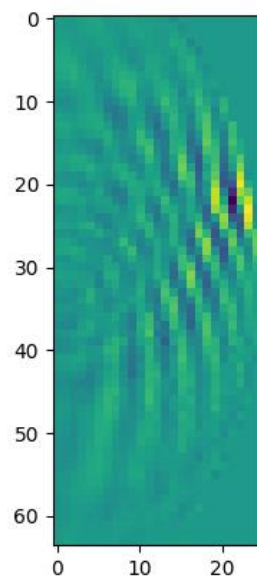


Figure 7: Heatmap obtained for $N_{\text{mics}} = 64$, $N_{\text{samples}} = 50$

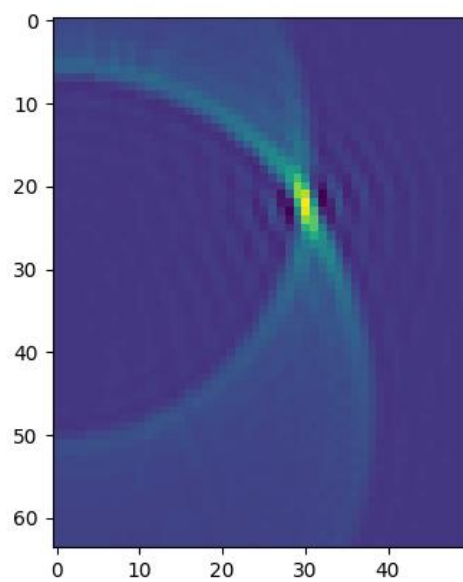


Figure 8: Heatmap obtained for $N_{\text{mics}} = 64$, $N_{\text{samples}} = 100$

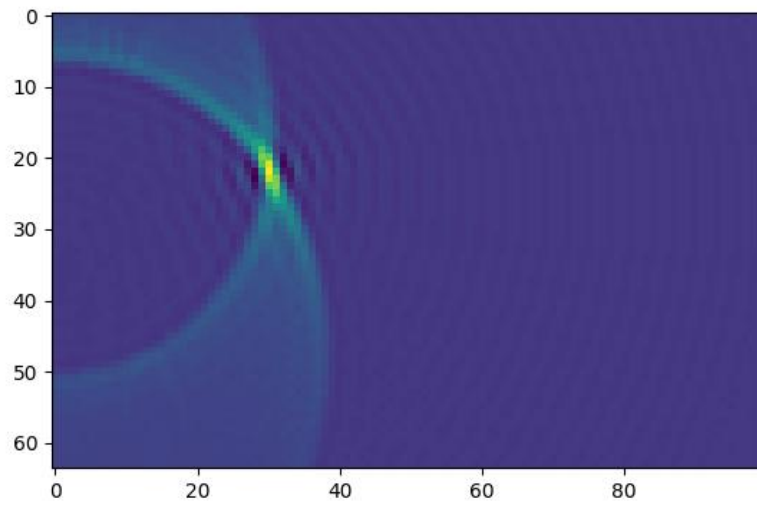


Figure 9: Heatmap obtained for $N_{mics} = 64$, $N_{samples} = 200$