**Data V1:**

In this folder, data is split into 4 groups of SIR values.

After examining over the 4 groups we decided to focus on SIR in the range of -50 to -10, and SNRs of 20 to 50.

In addition, different preprocessing methods were tested, and different architectures.

Eventually we chose the best ones to continue with.

**Data V2:**

Consists of data in the ranges specified before (SIR and SNR).

201600 samples, where angleReps = 10 and randReps = 80

Used to train a stage2 network. Pattern results were very poor.

I realized that changing the ration between angleReps and randReps might help, therefore DataV3 was created:

**Data V3:**

Consists of data in the ranges specified before (SIR and SNR).

201600 samples, where angleReps = 40 and randReps = 20

Changed the structure of the data saving a bit. (not significant)

Trained the stage1 neural network and got better results than before (both loss and patterns)

There is a problem in the creation of data. The MPDR weights are generated using the MPDR matrix and the original, true steering vector. They should be generated using the MPDR matrix and an estimation of the steering vector produced using the MPDR matrix.

This is not a problem as long as I'm not using the MPDR weights or the steering vector.

Can't currently produce a corrected dataset because runtime is too long.

Is it always true that the second strongest peak is the DOA? Even with G/P distortions?