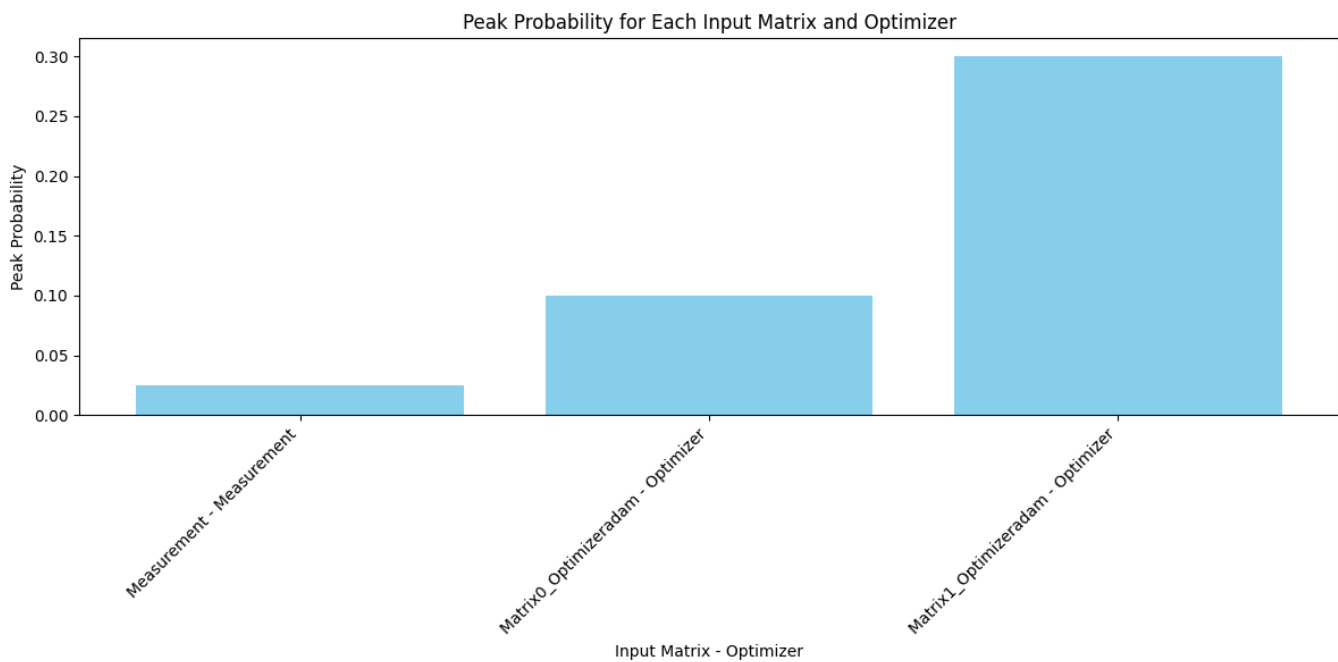
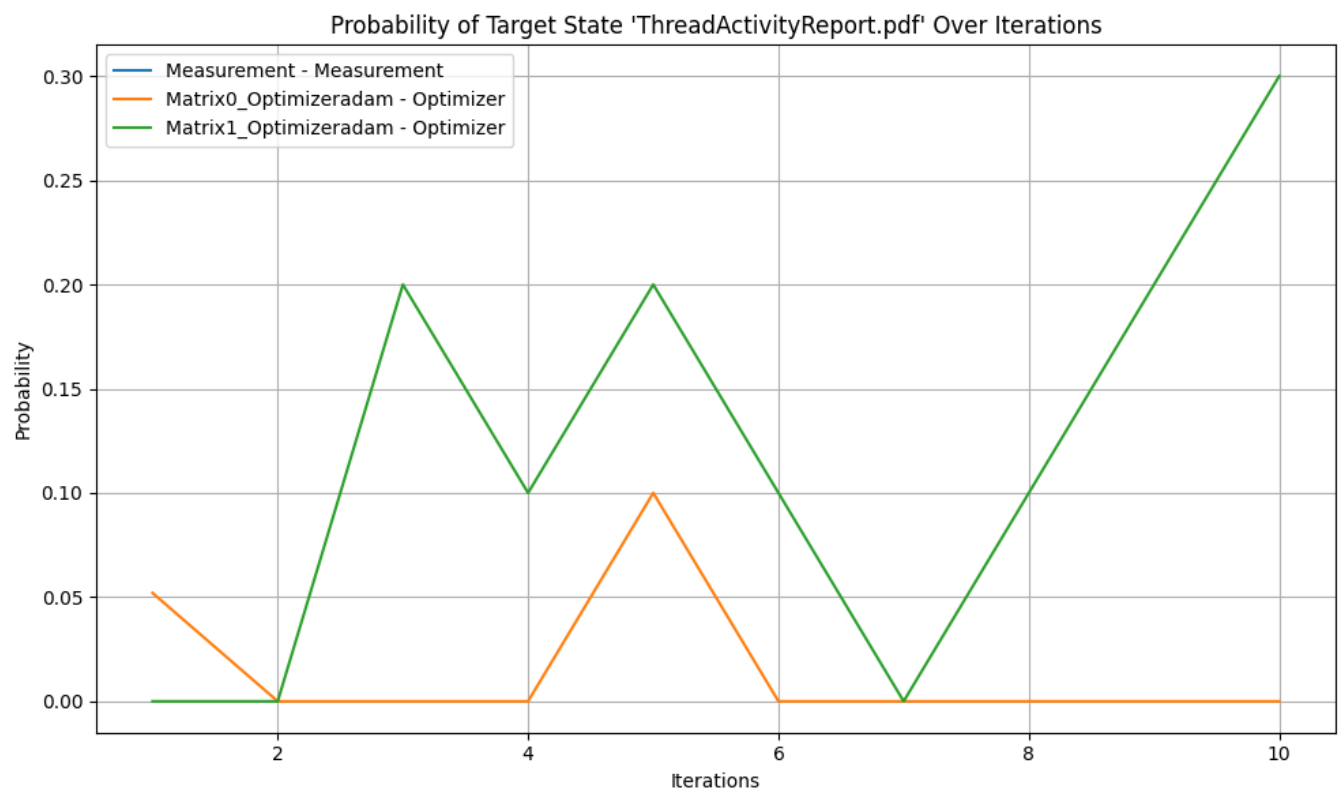


# Training Report - Target State: ThreadActivityReport.pdf

Generated on: 2025-01-28 09:37:45

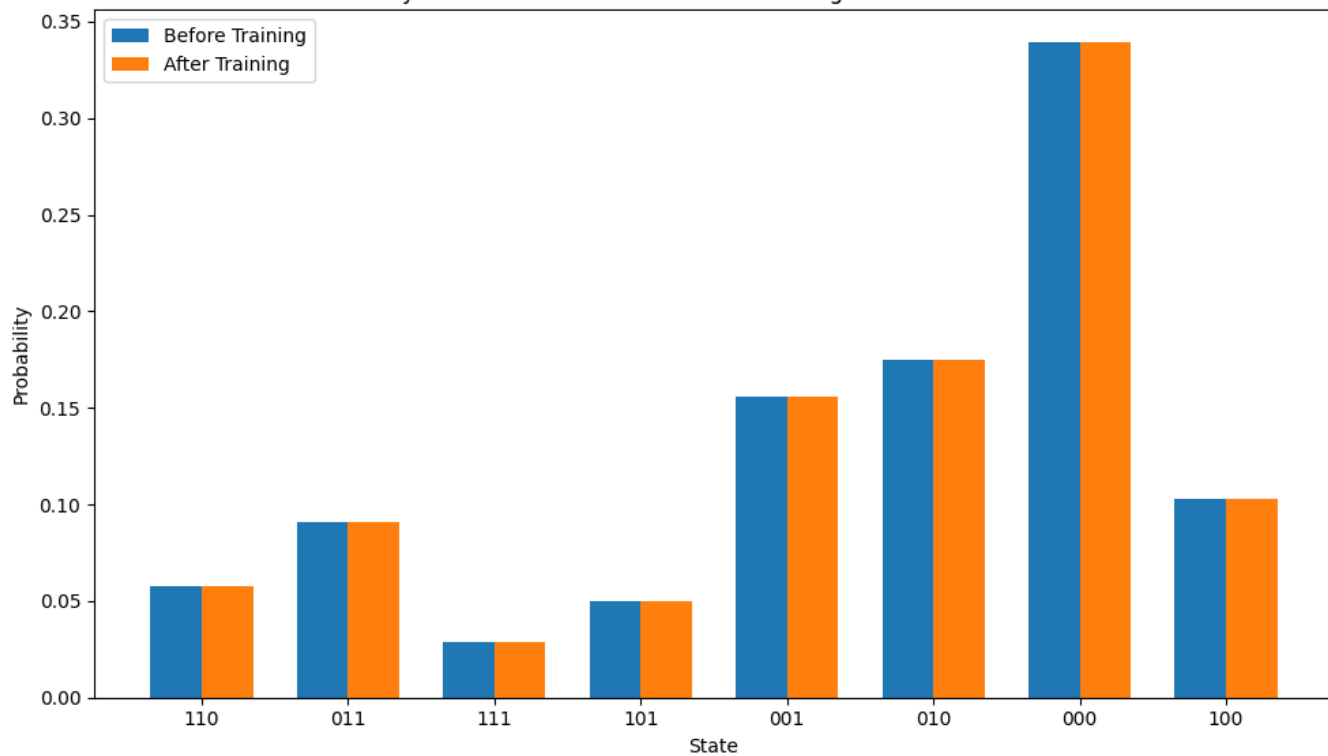


## Input Data and Probability Over Time:

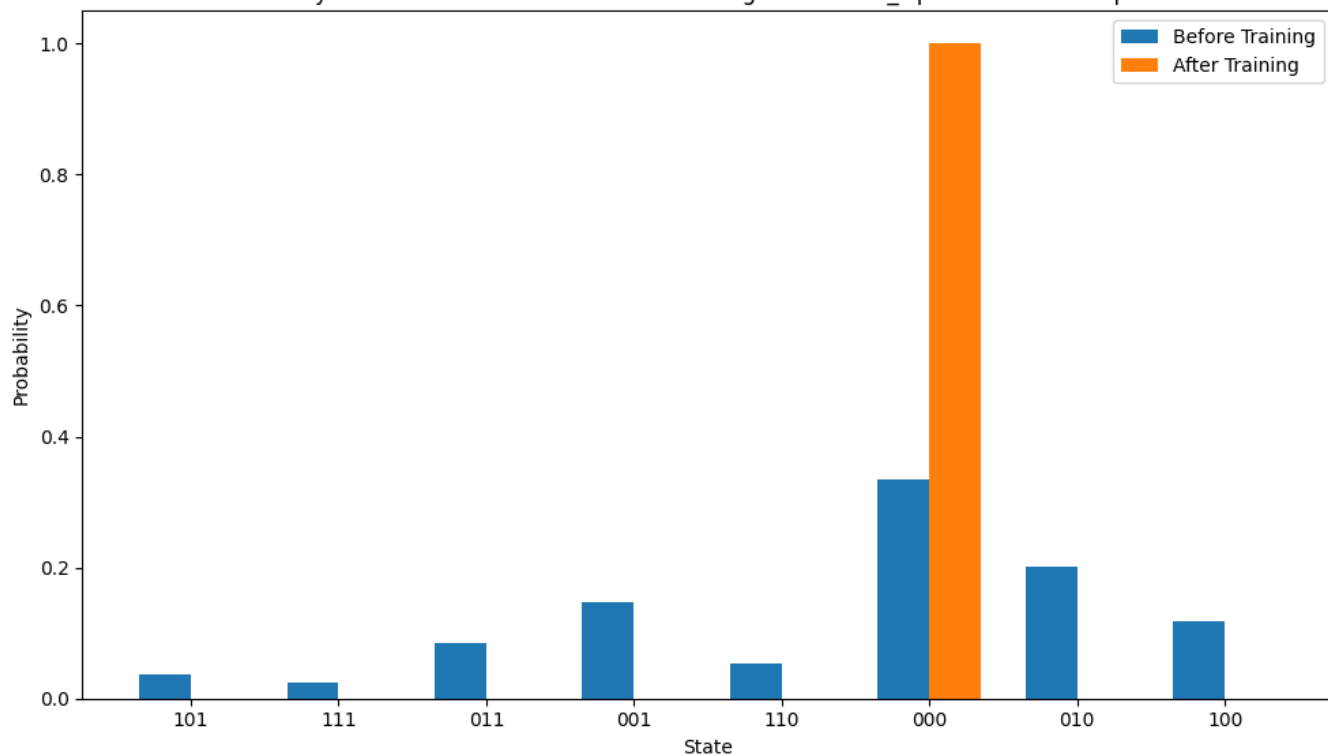
The above plot illustrates how the probability of the target state increases over training iterations for

each input matrix and optimizer. The accompanying bar chart shows the peak probability achieved by each matrix.

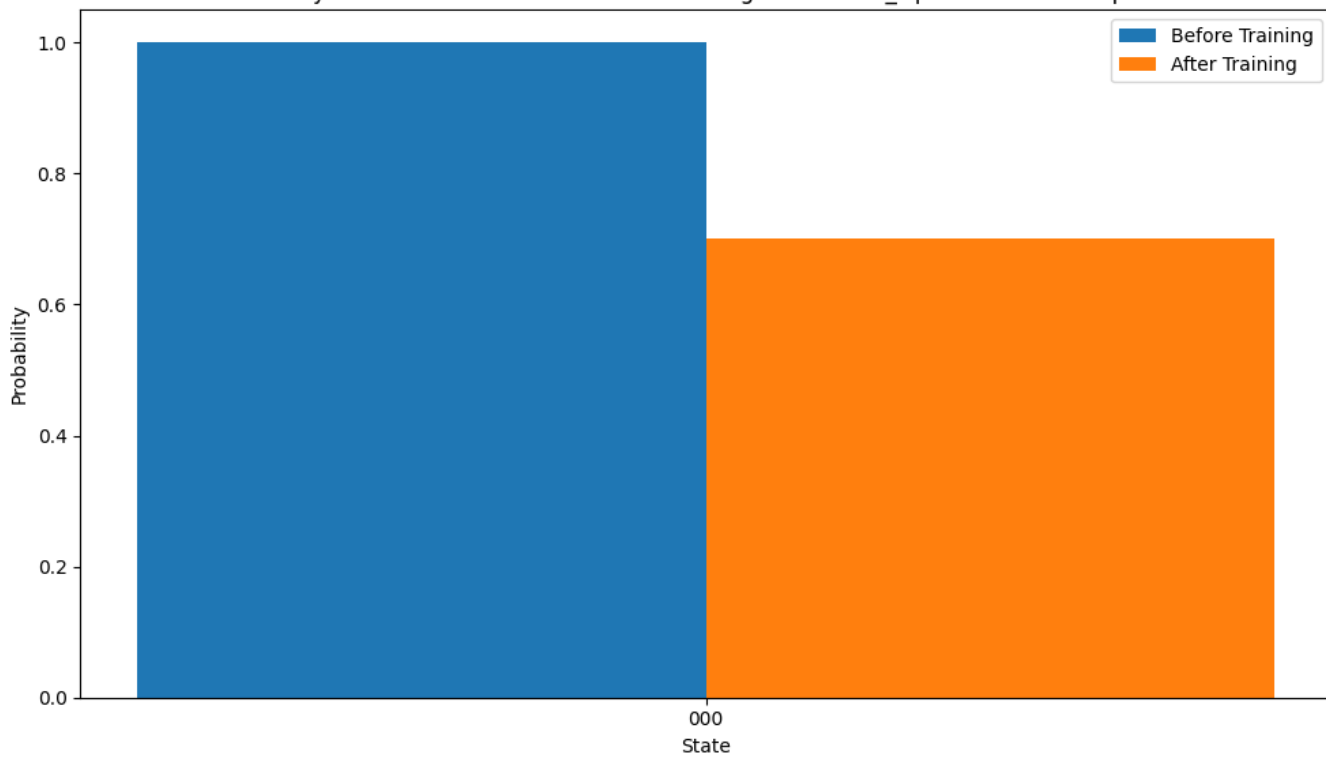
Probability Distribution Before and After Training for Matrix1 - InitialCircuit



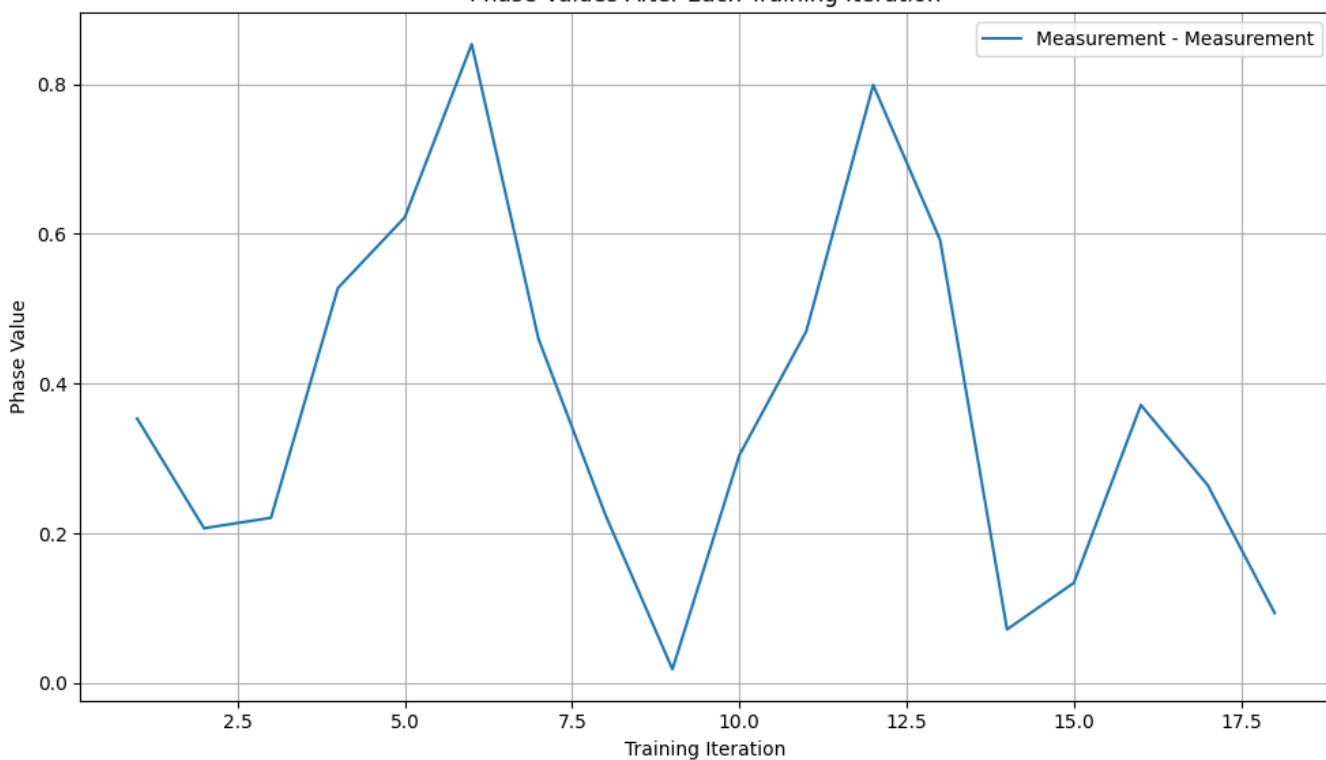
Probability Distribution Before and After Training for Matrix0\_Optimizeradam - Optimizer

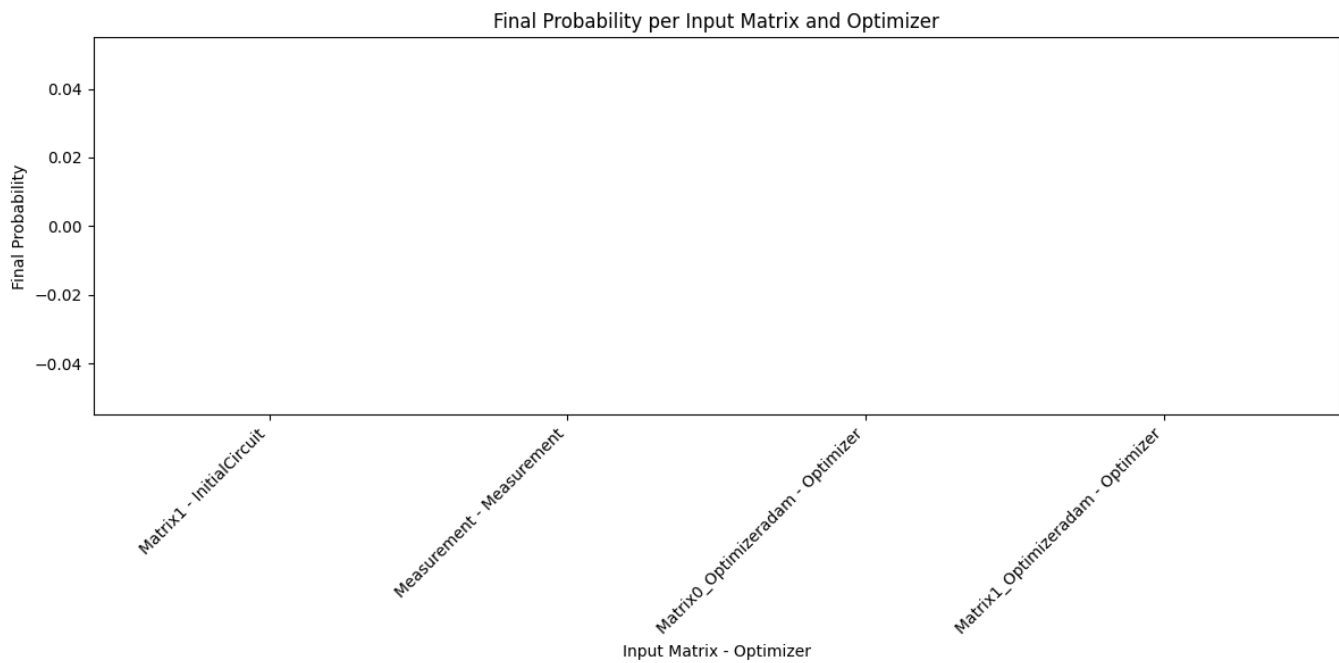


Probability Distribution Before and After Training for Matrix1\_Optimizeradam - Optimizer



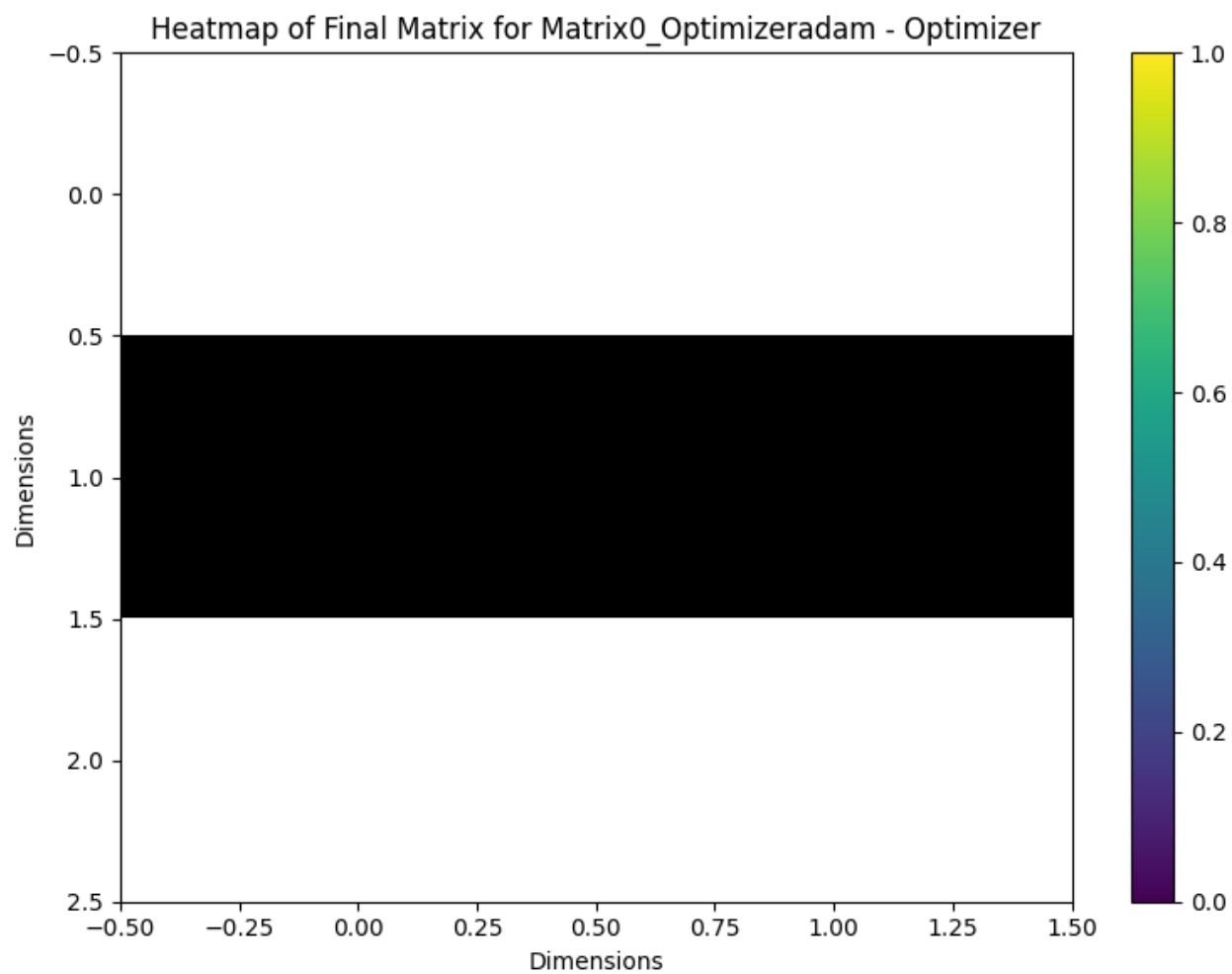
Phase Values After Each Training Iteration

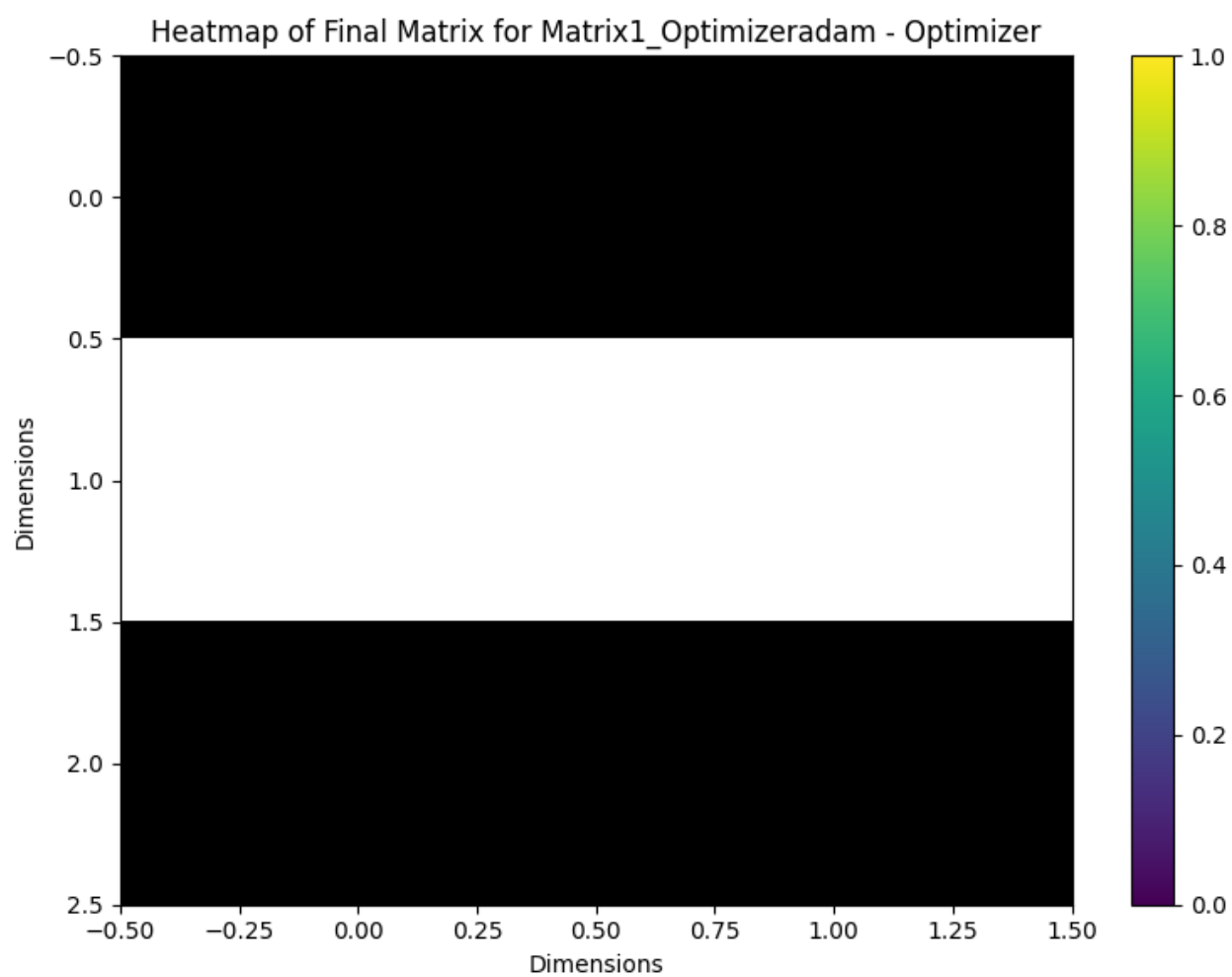


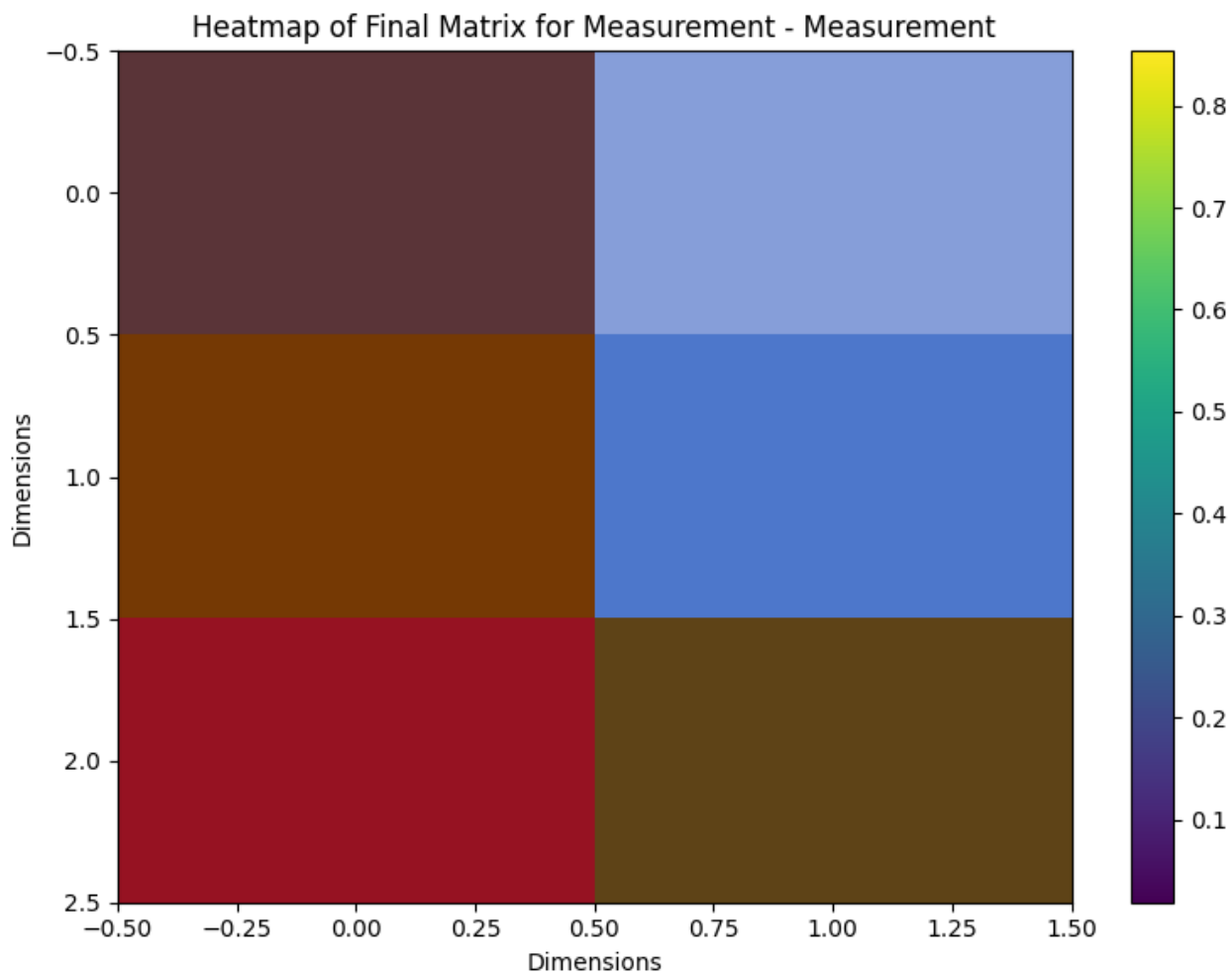


**Probability Distributions and Phase Values:**

The above bar charts display the probability distributions before and after training for each input matrix and optimizer, along with the phase values recorded after each training iteration. The final probability bar chart summarizes the probabilities achieved by each matrix and optimizer combination after training.







### Heatmap of Final Matrices and Convergence Speed:

The heatmap provides a visual representation of the final matrices for each input matrix and optimizer. The convergence speed plot shows the number of iterations required to achieve 90% and 99% probability thresholds.



# Summary

This report summarizes the training performance of various optimizers across different input matrices. It includes their final probabilities, loss values, convergence speeds, and phase values.

## Key Metrics:

Input Matrix	Optimizer	Final Probability	Iterations to 90%	Iterations to 99%
Matrix1	InitialCircuit	0.000	N/A	N/A
Measurement	Measurement	0.000	N/A	N/A
Matrix0_Optimizer	Optimizer	0.000	N/A	N/A
Matrix1_Optimizer	Optimizer	0.000	N/A	N/A

## Best Optimizer Snapshot:

The best optimizer is None for input matrix 'None' with a final probability of 0.000.

## Legends and Descriptions:

All charts include detailed captions and legends for better interpretability.