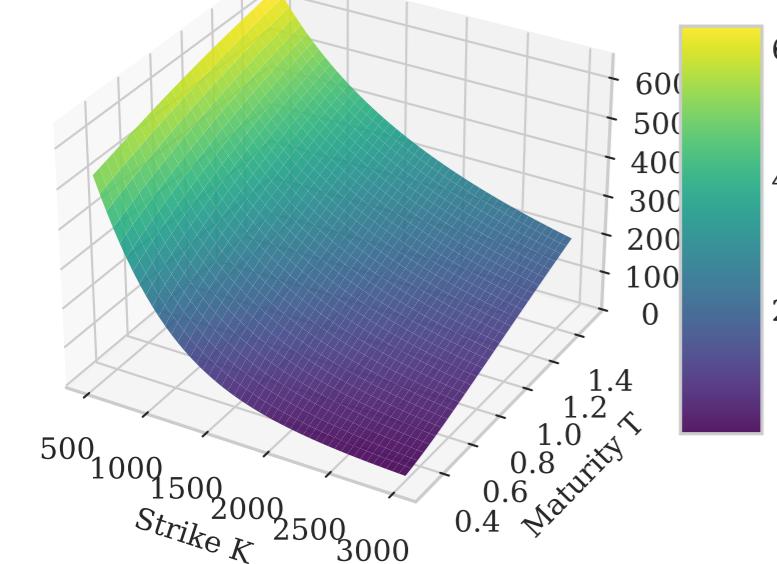


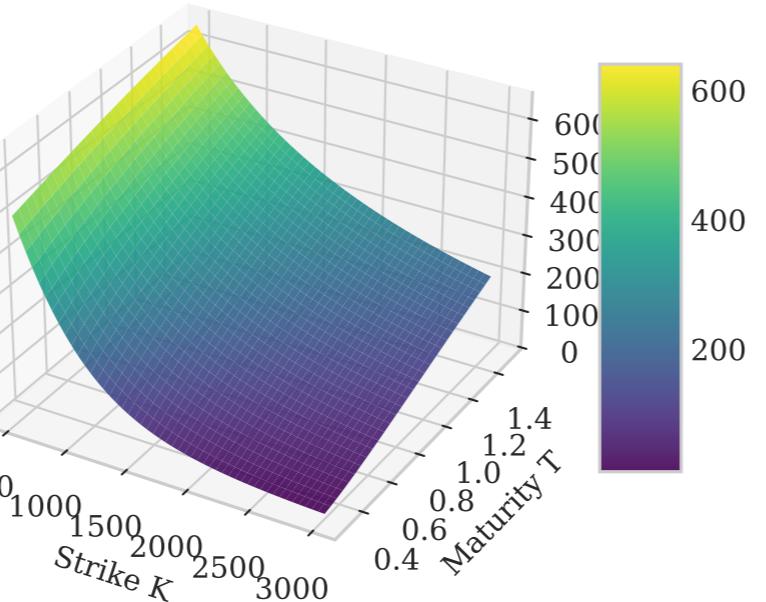
Neural Network vs Analytical Solution Comparison ($\sigma = 1.0$)

Trained Model vs Black-Scholes

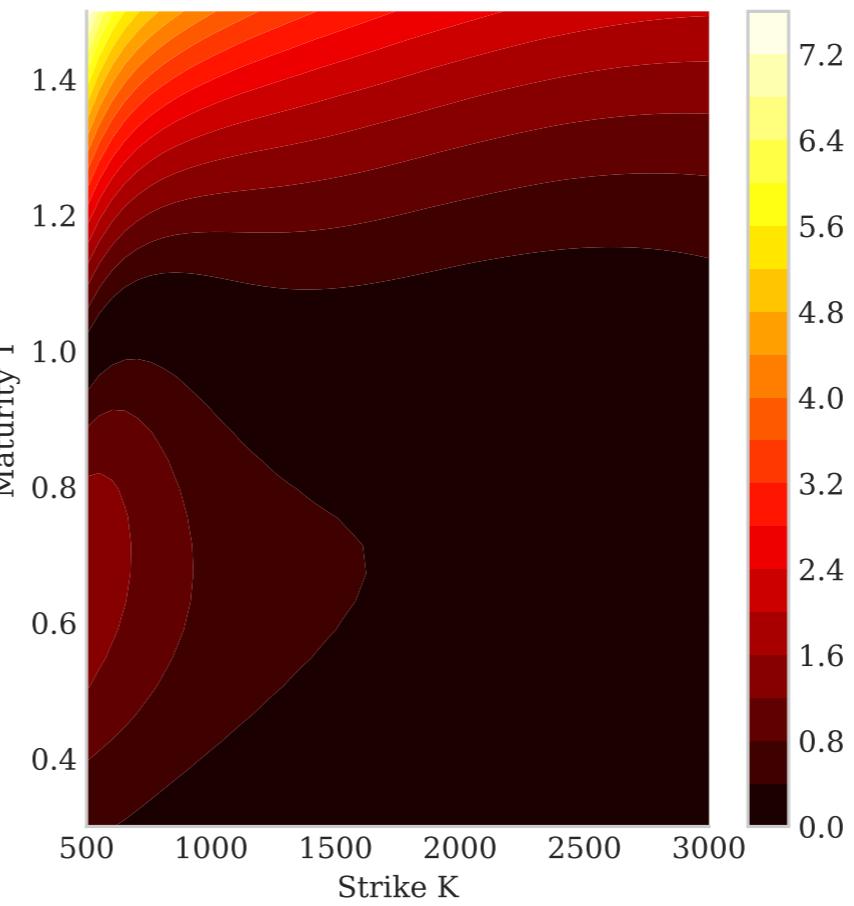
NN Option Prices $C_{NN}(K,T)$



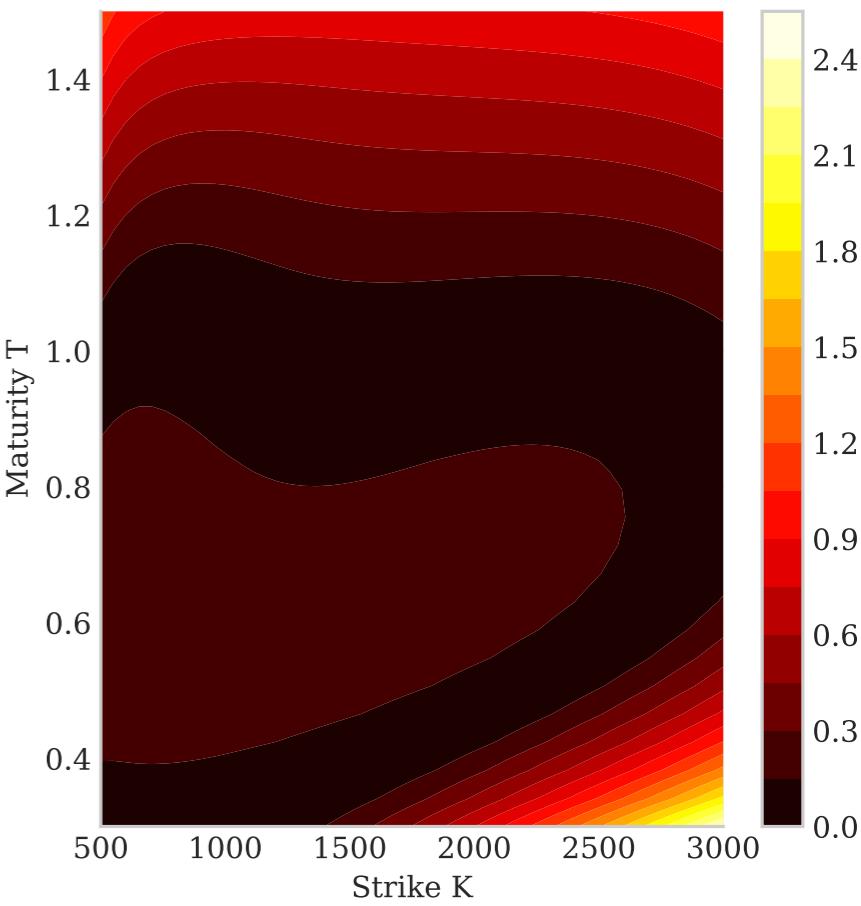
Black-Scholes $C_{BS}(K,T)$



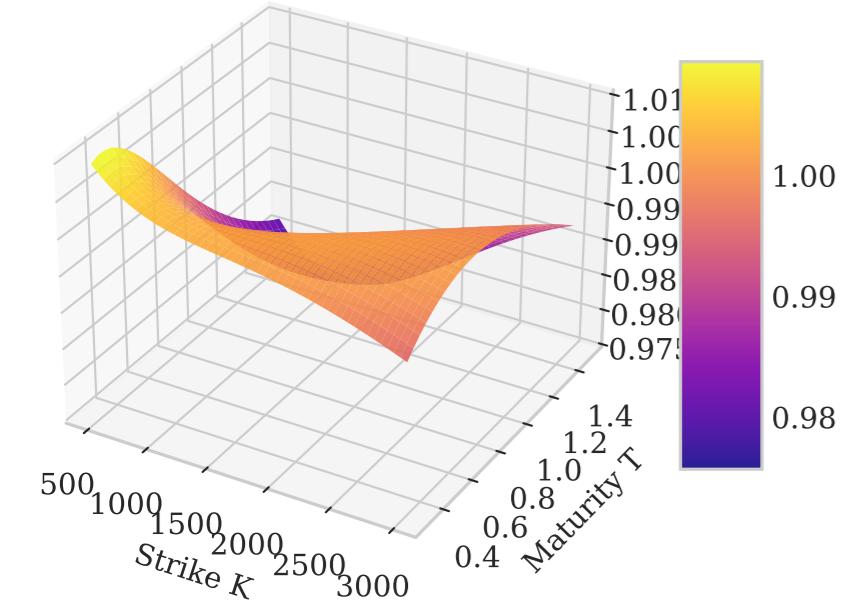
Absolute Error $|C_{NN} - C_{BS}|$
RMSE = 1.2566



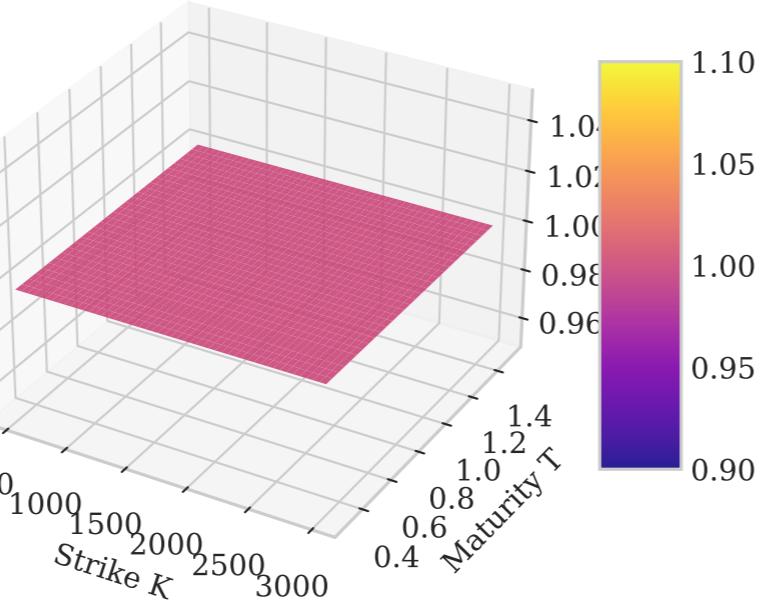
Relative Error (%)
Mean = 0.31%



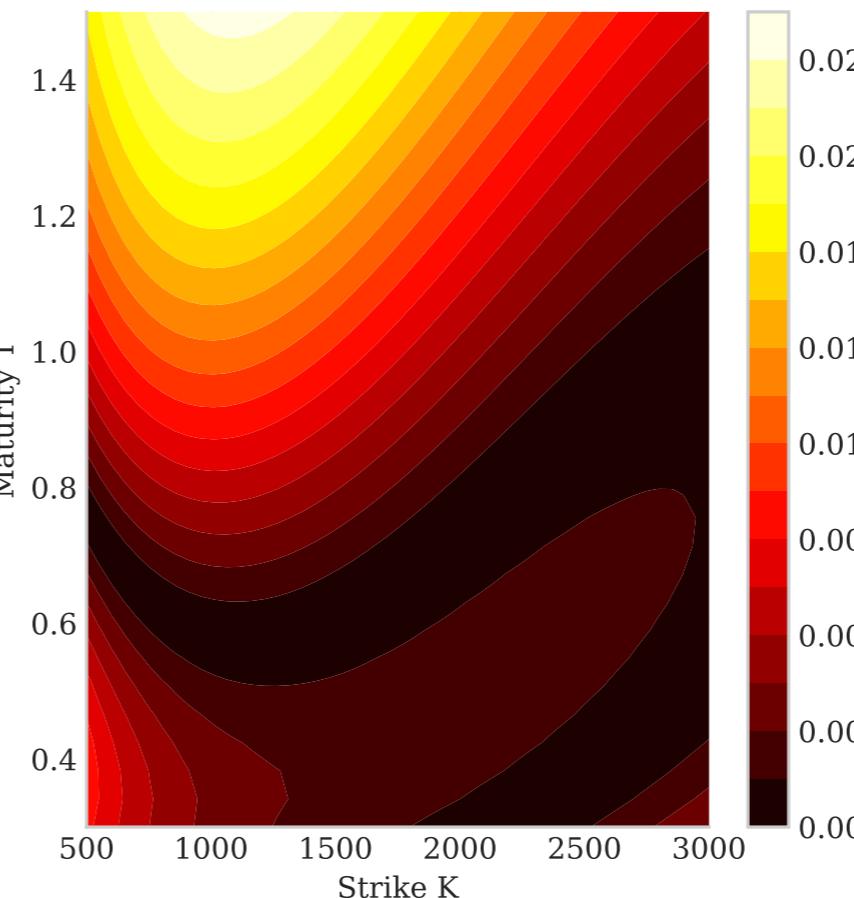
NN Local Volatility $\sigma_{NN}(K,T)$



Constant Volatility $\sigma = 1.0$



Volatility Error $|\sigma_{NN} - \sigma|$
RMSE = 0.0098



Risk-Neutral Densities

