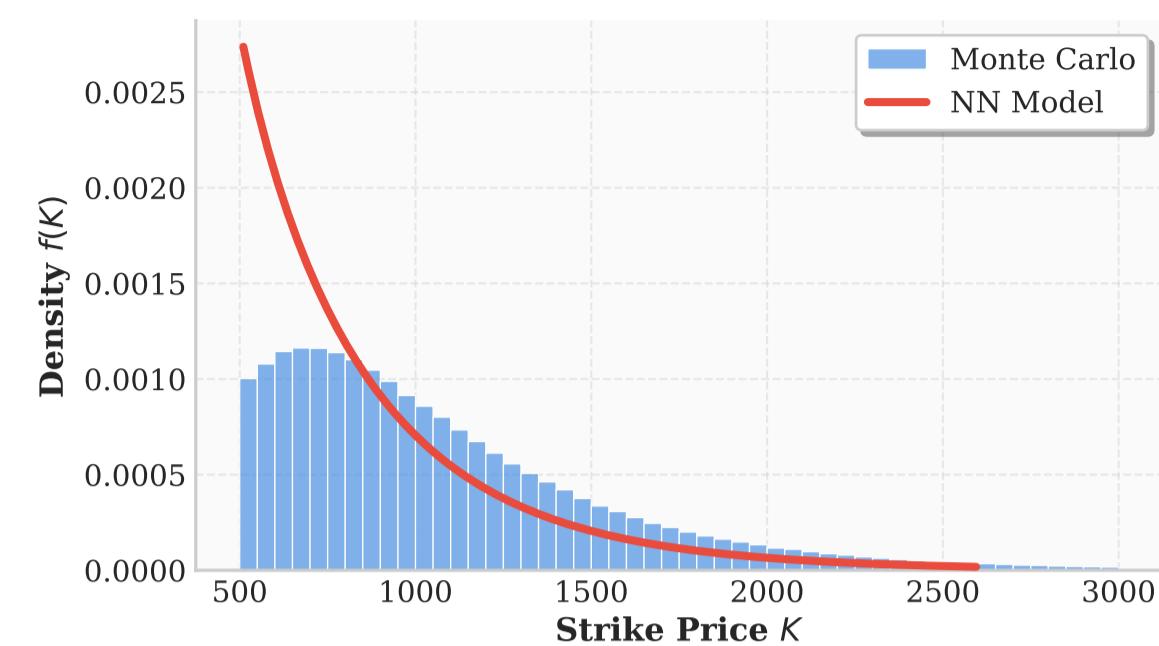


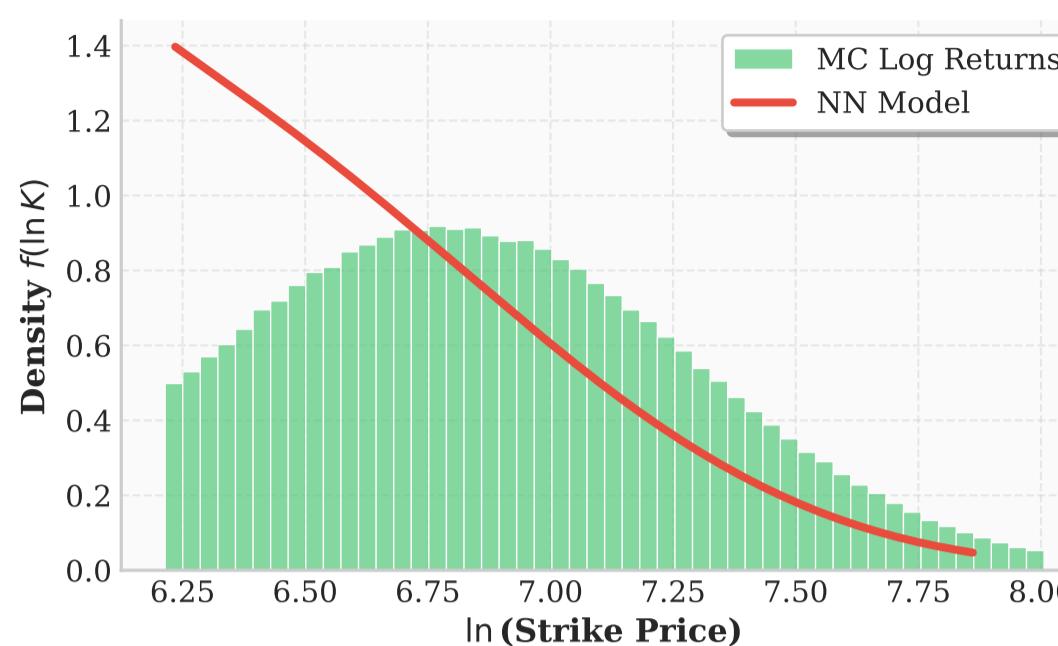
PDF Analysis: Neural Network Synthetic Local Volatility Model

Monte Carlo with $dS_t = rS_t dt + \sigma_{NN}(t, S)S_t dW_t$

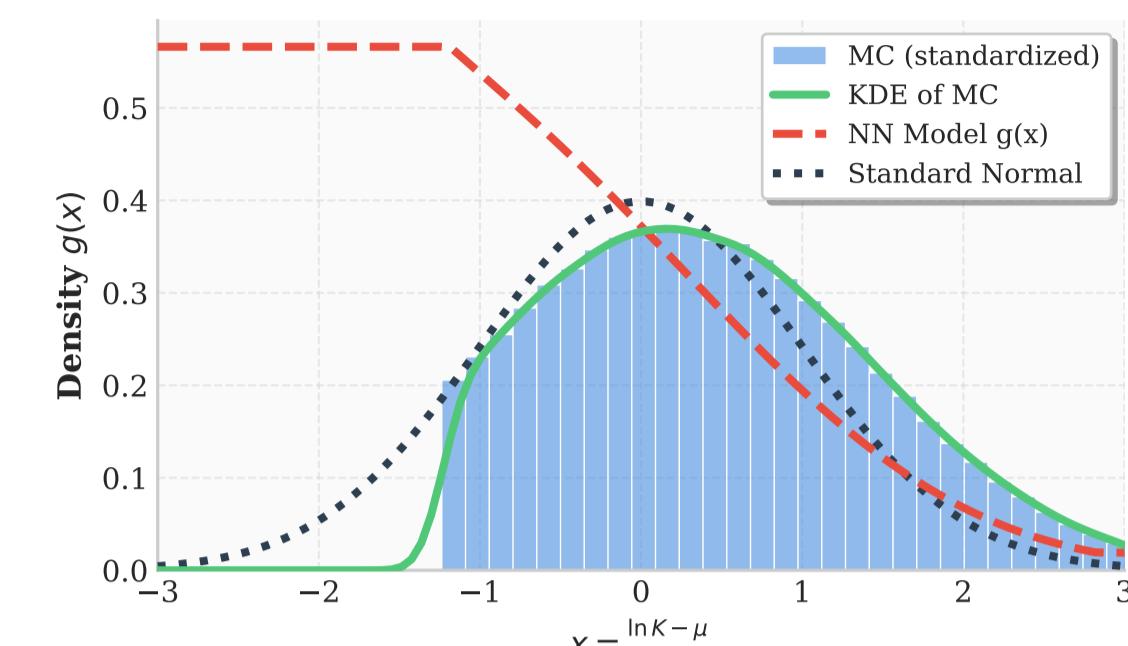
Strike Distribution ($T = 0.25$)



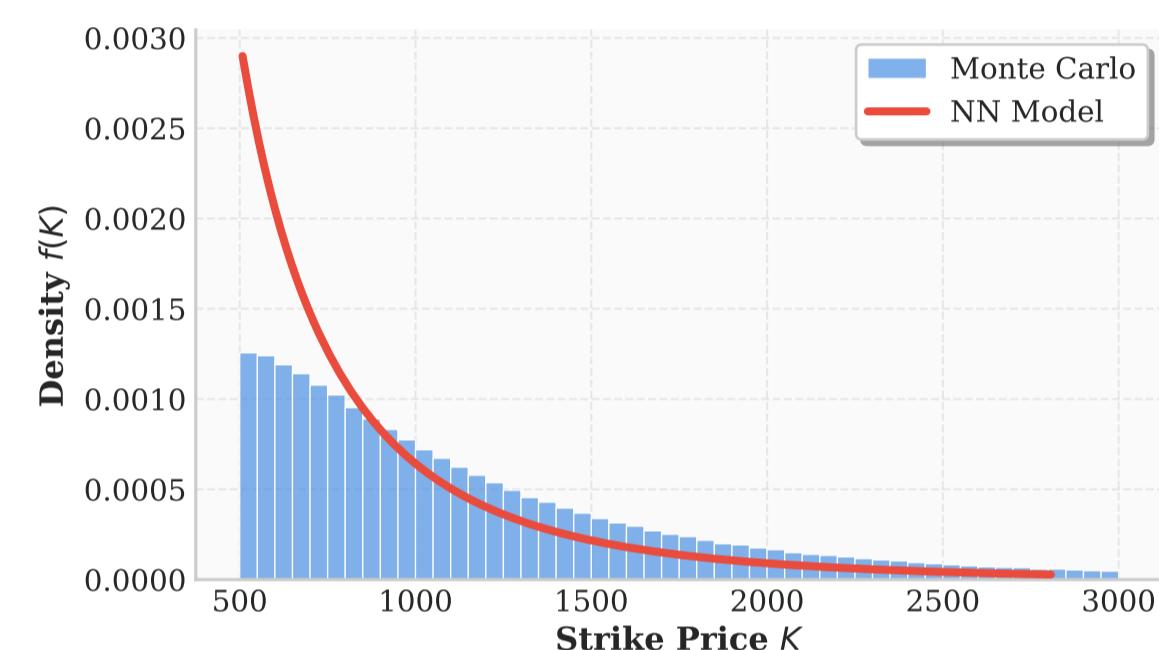
Log-Normal Distribution ($T = 0.25$)



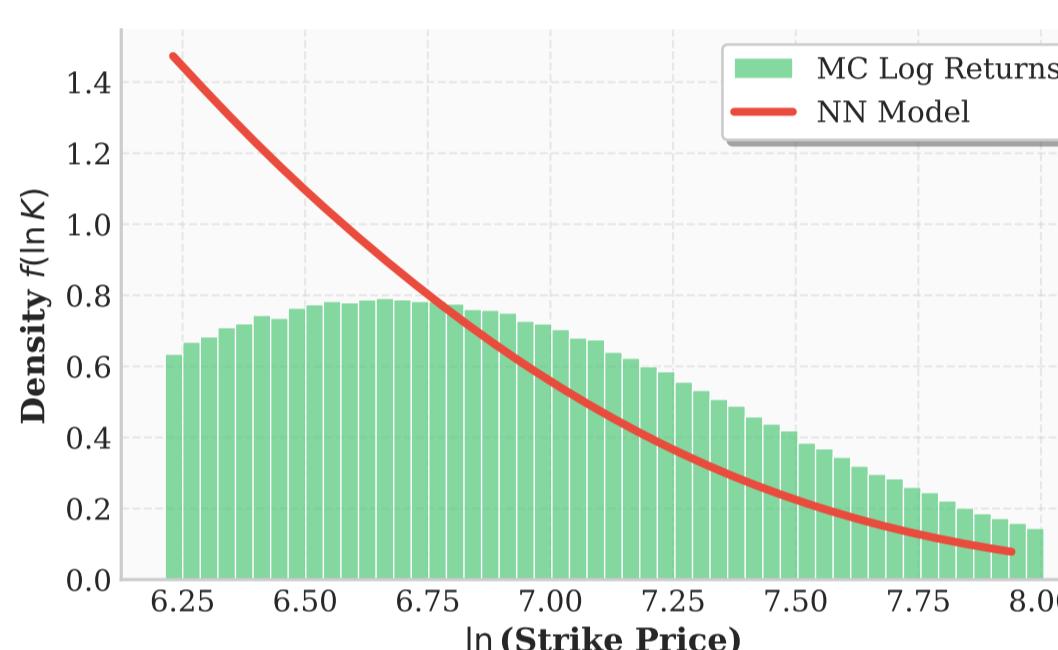
Gaussian Space ($T = 0.25$)
 Fitted: $\mu=6.72, \sigma=0.41 \rightarrow \text{Standardized } N(0,1)$
 MC Stats: $\mu=0.45, \sigma=0.98, \text{Skew}=0.38, \text{ExKurt}=-0.52$



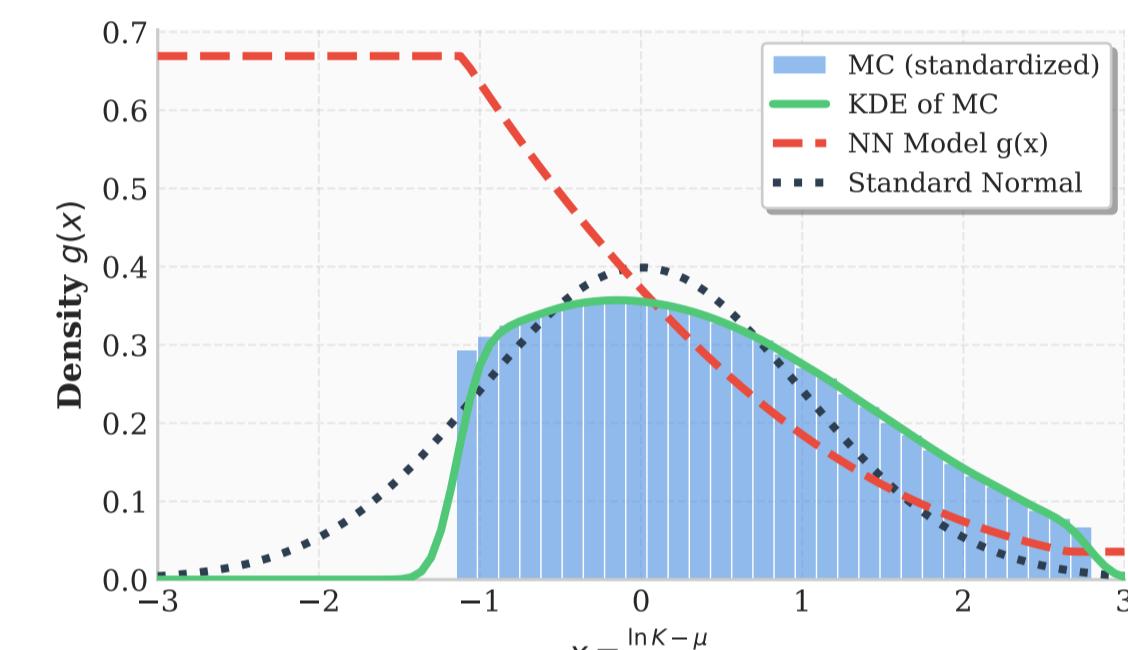
Strike Distribution ($T = 0.50$)



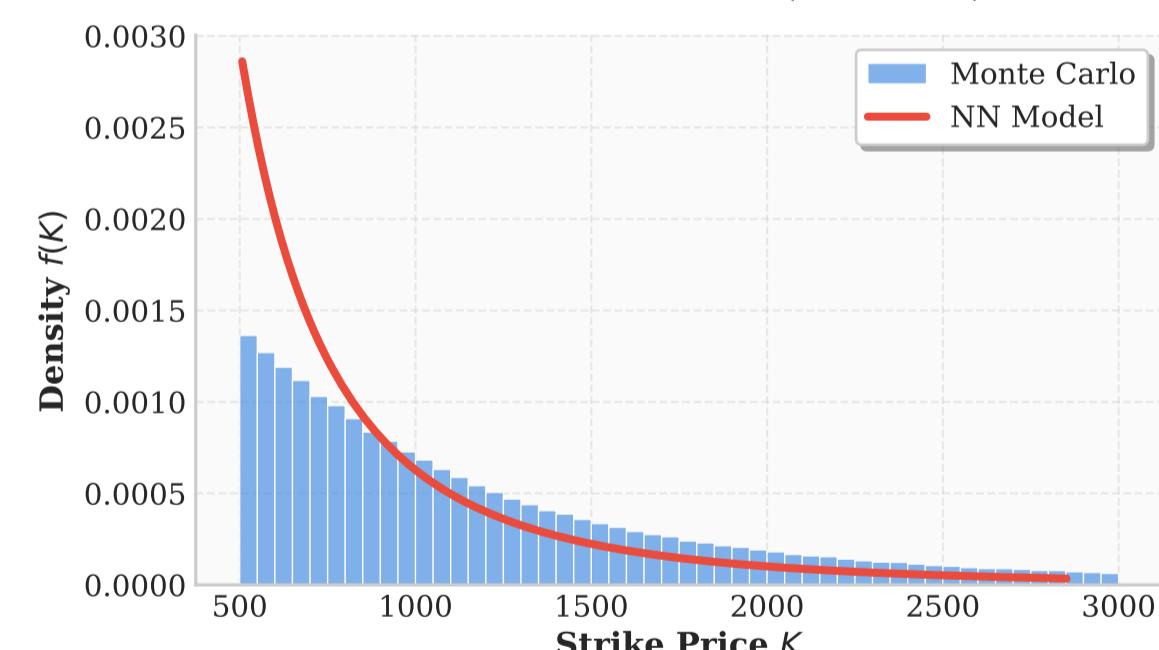
Log-Normal Distribution ($T = 0.50$)



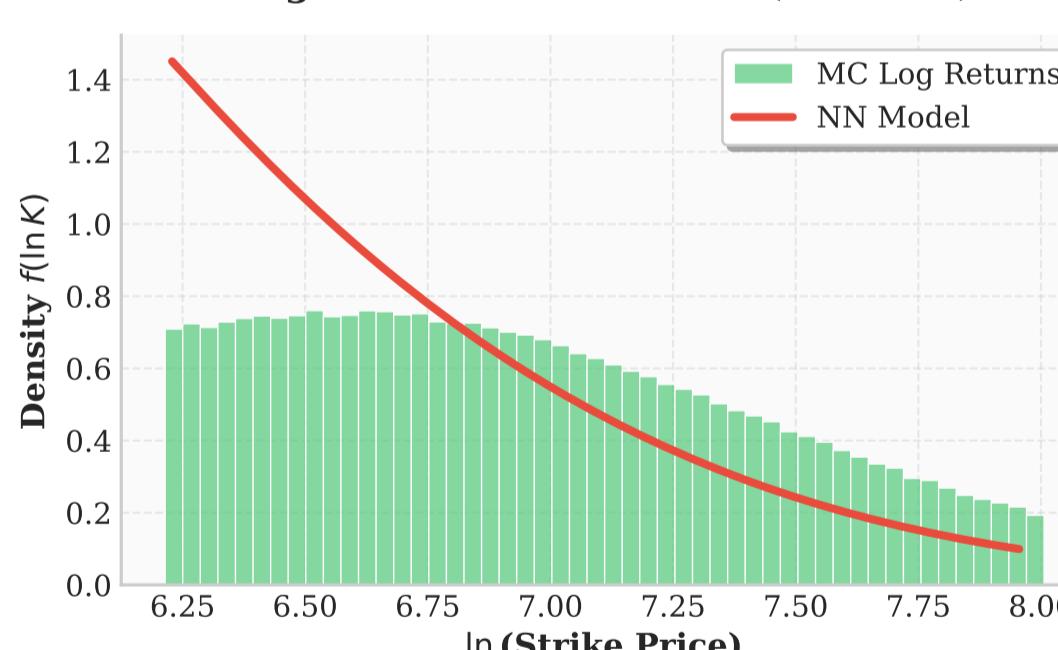
Gaussian Space ($T = 0.50$)
 Fitted: $\mu=6.74, \sigma=0.45 \rightarrow \text{Standardized } N(0,1)$
 MC Stats: $\mu=0.43, \sigma=0.98, \text{Skew}=0.38, \text{ExKurt}=-0.76$



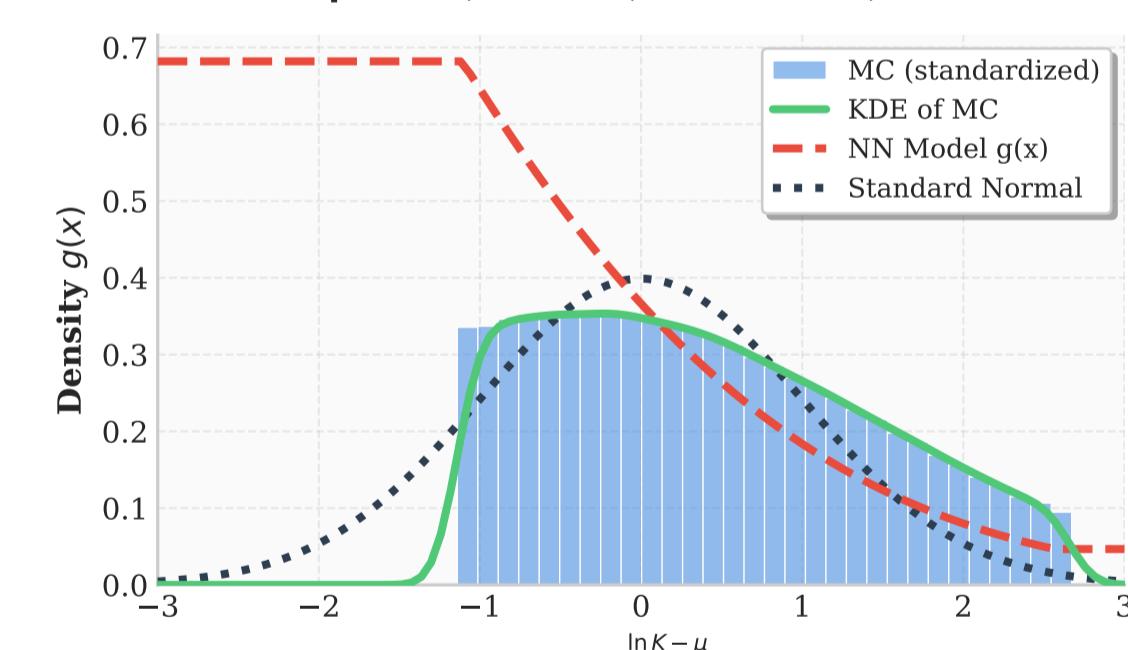
Strike Distribution ($T = 0.75$)



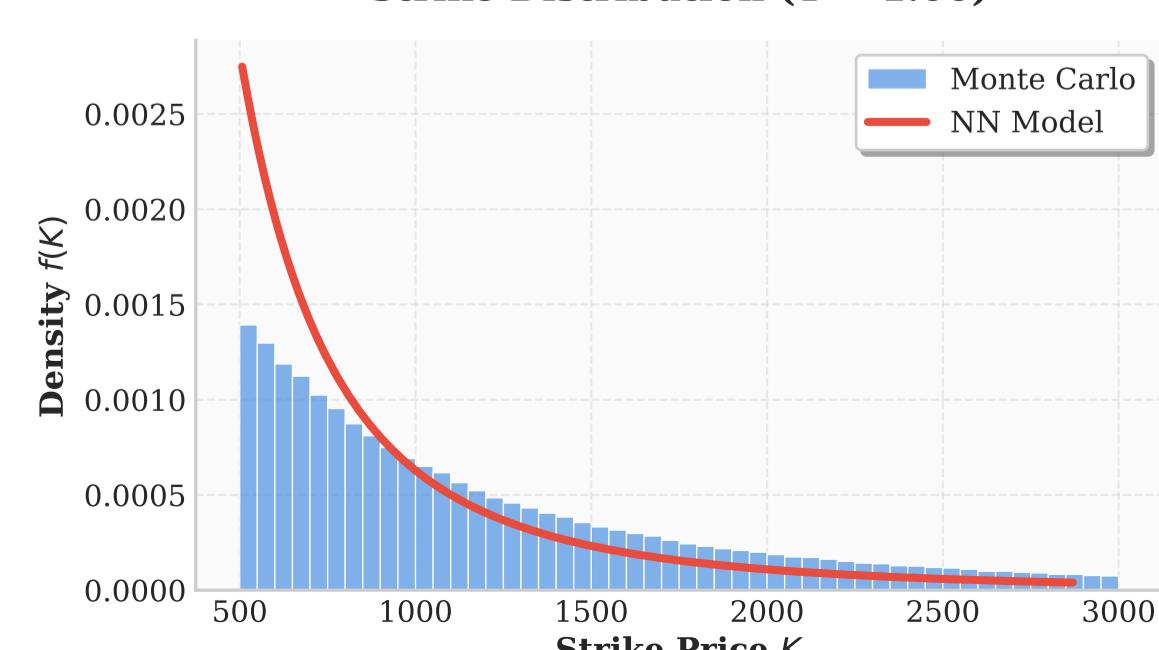
Log-Normal Distribution ($T = 0.75$)



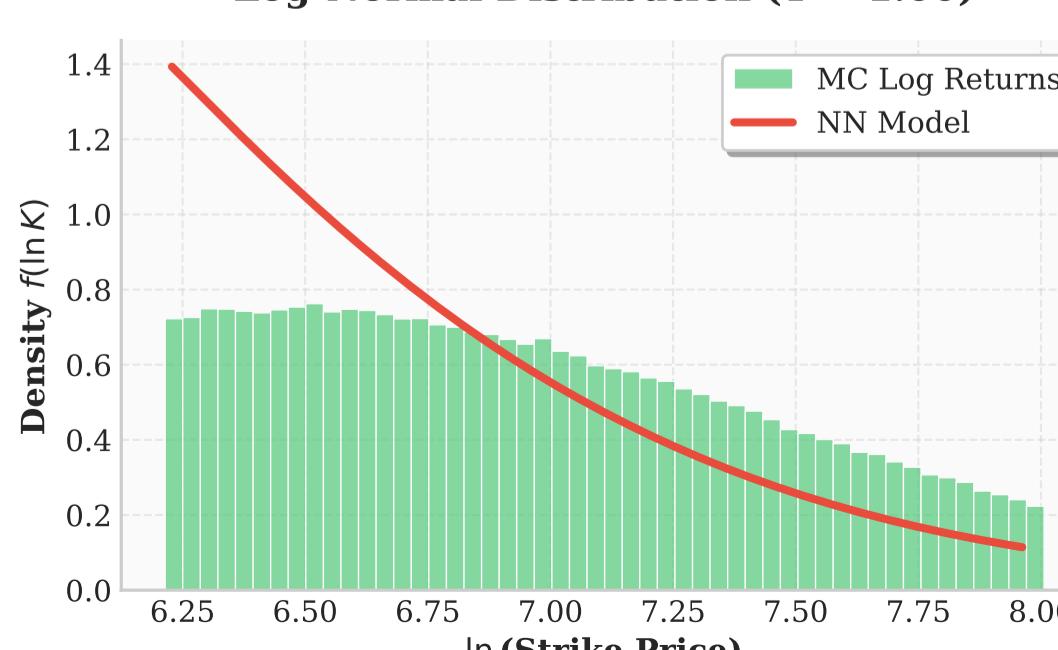
Gaussian Space ($T = 0.75$)
 Fitted: $\mu=6.75, \sigma=0.47 \rightarrow \text{Standardized } N(0,1)$
 MC Stats: $\mu=0.42, \sigma=0.99, \text{Skew}=0.36, \text{ExKurt}=-0.85$



Strike Distribution ($T = 1.00$)



Log-Normal Distribution ($T = 1.00$)



Gaussian Space ($T = 1.00$)
 Fitted: $\mu=6.77, \sigma=0.48 \rightarrow \text{Standardized } N(0,1)$
 MC Stats: $\mu=0.39, \sigma=1.00, \text{Skew}=0.35, \text{ExKurt}=-0.91$

