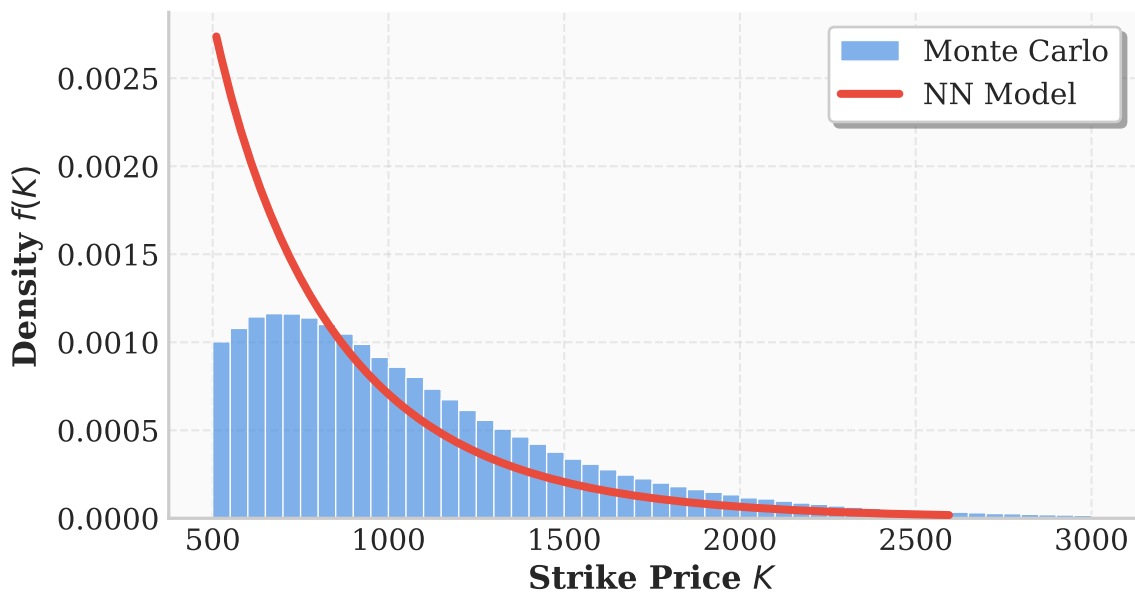
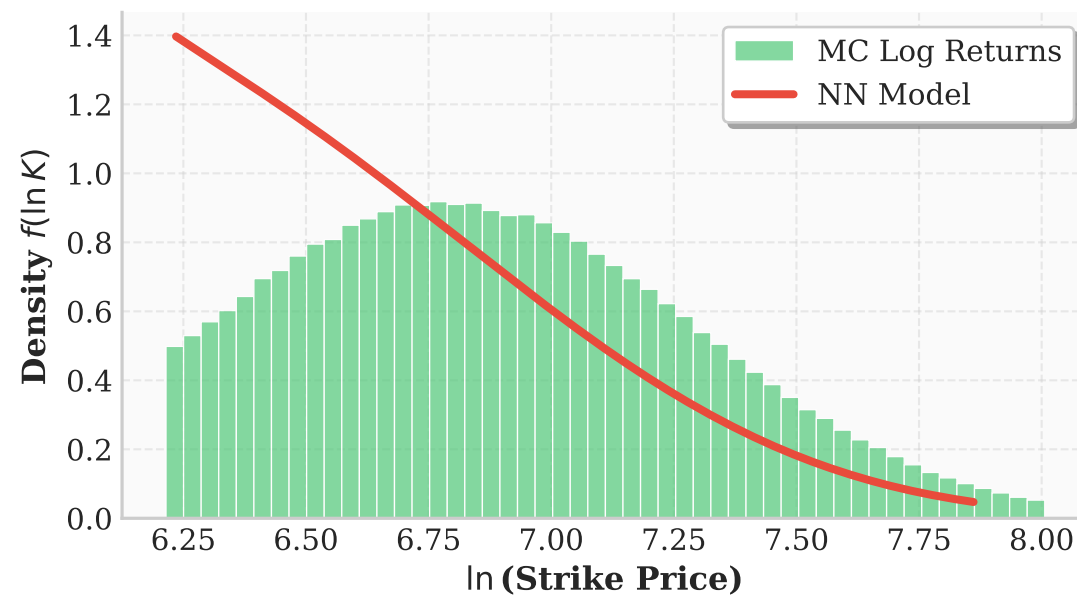


PDF Analysis: Neural Network Synthetic Local Volatility Model
Monte Carlo with $dS_t = rS_t dt + \sigma_{NN}(t, S)S_t dW_t$

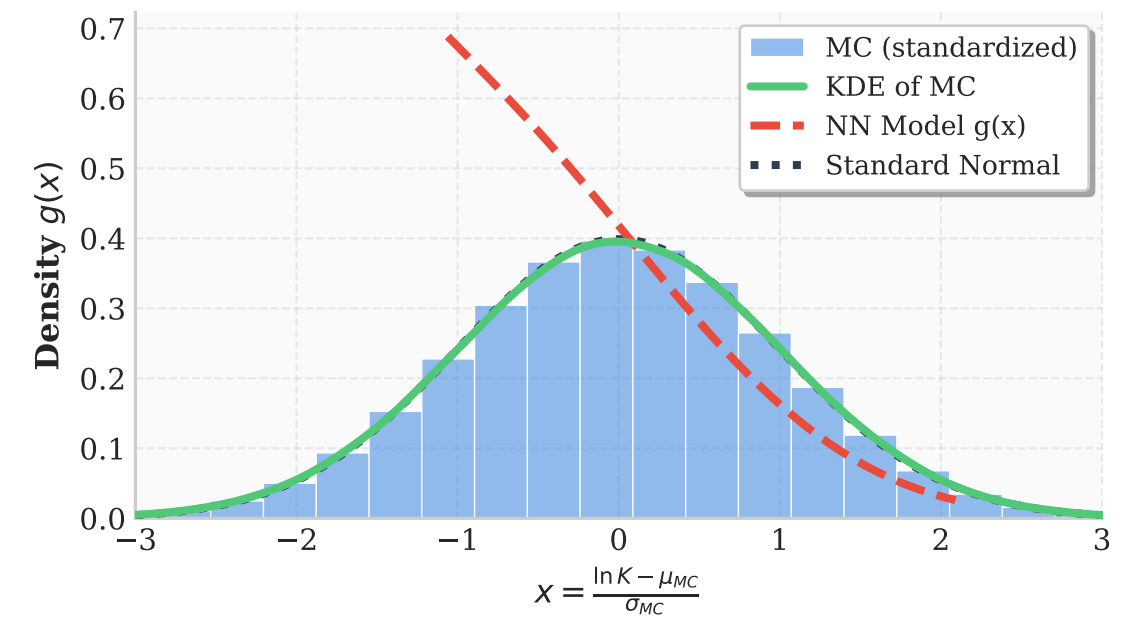
Strike Distribution (T = 0.25)



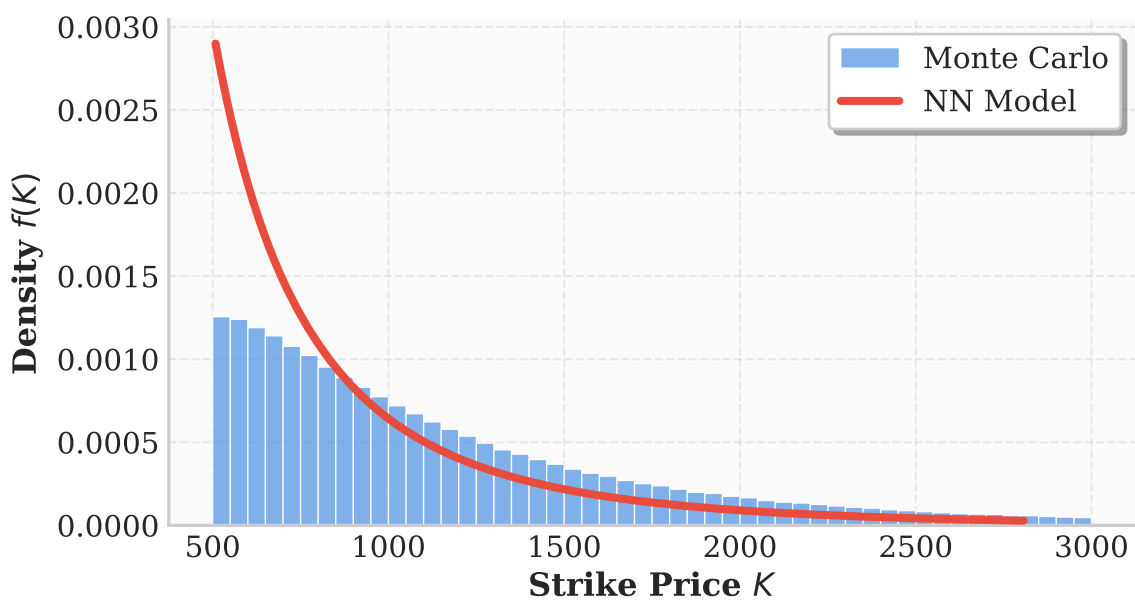
Log-Normal Distribution (T = 0.25)



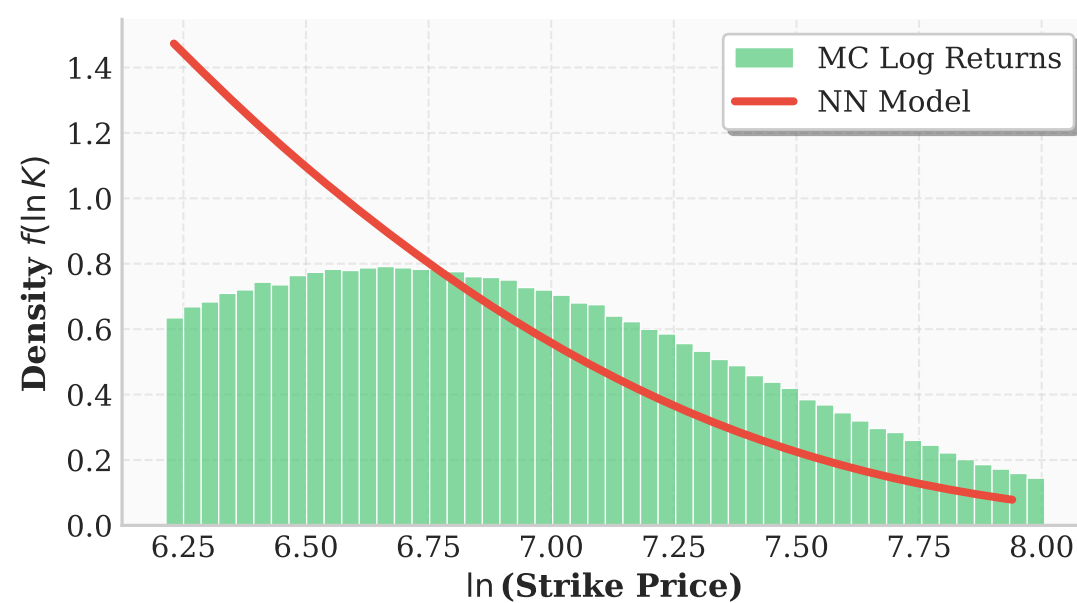
Gaussian Space (T = 0.25)
MC Standardization: $\mu_{MC}=6.79, \sigma_{MC}=0.50 \rightarrow x_{MC} \sim N(0,1)$
Model Fit (truncated): $\mu_{model}=6.72, \sigma_{model}=0.41$
MC Stats: $\mu=0.00, \sigma=1.00, \text{Skew}=-0.01, \bar{\text{ExKurt}}=-0.00$



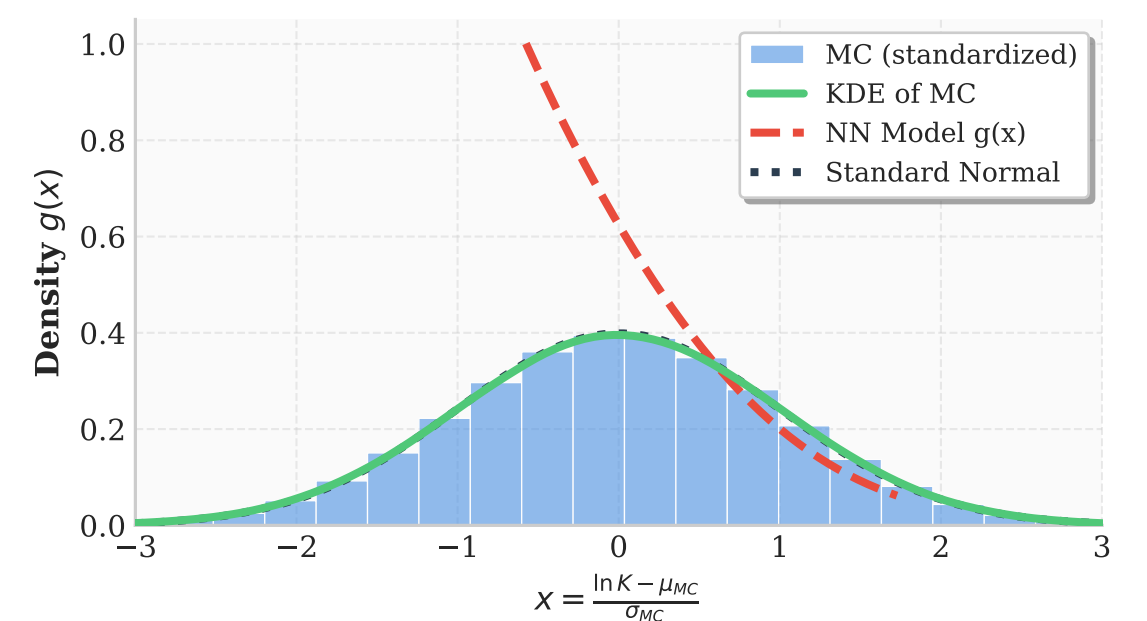
Strike Distribution (T = 0.50)



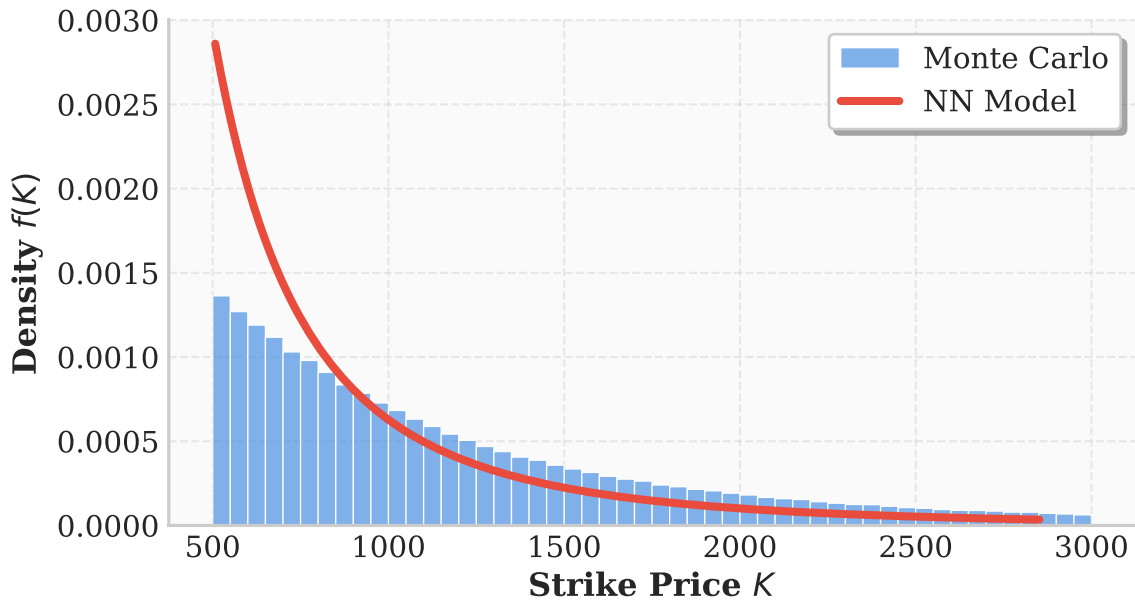
Log-Normal Distribution (T = 0.50)



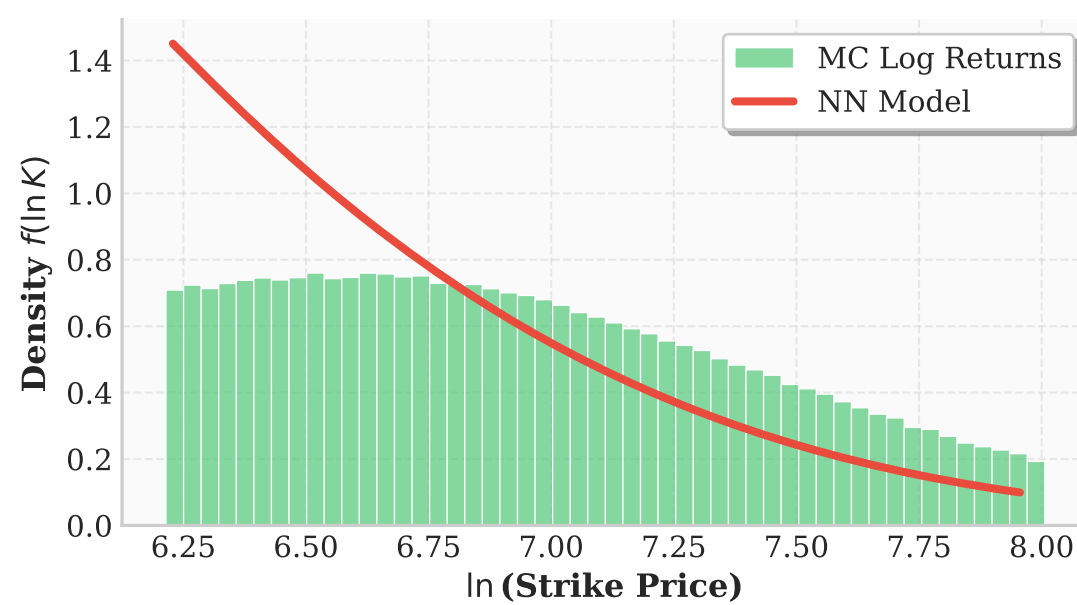
Gaussian Space (T = 0.50)
MC Standardization: $\mu_{MC}=6.68, \sigma_{MC}=0.71 \rightarrow x_{MC} \sim N(0,1)$
Model Fit (truncated): $\mu_{model}=6.74, \sigma_{model}=0.45$
MC Stats: $\mu=0.00, \sigma=1.00, \text{Skew}=-0.01, \bar{\text{ExKurt}}=-0.01$



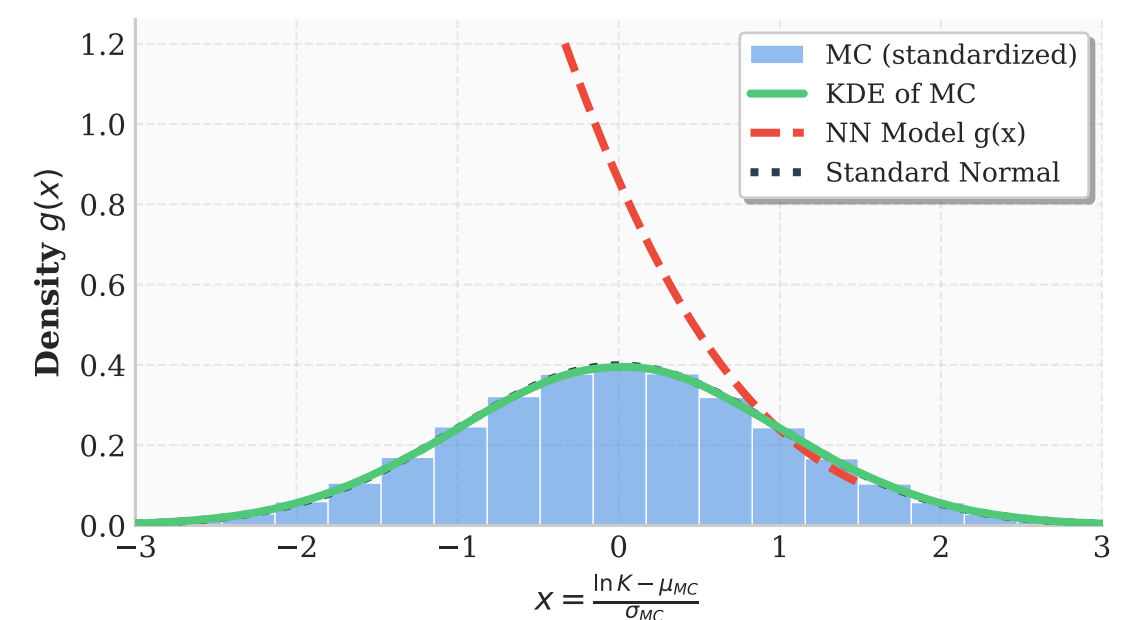
Strike Distribution (T = 0.75)



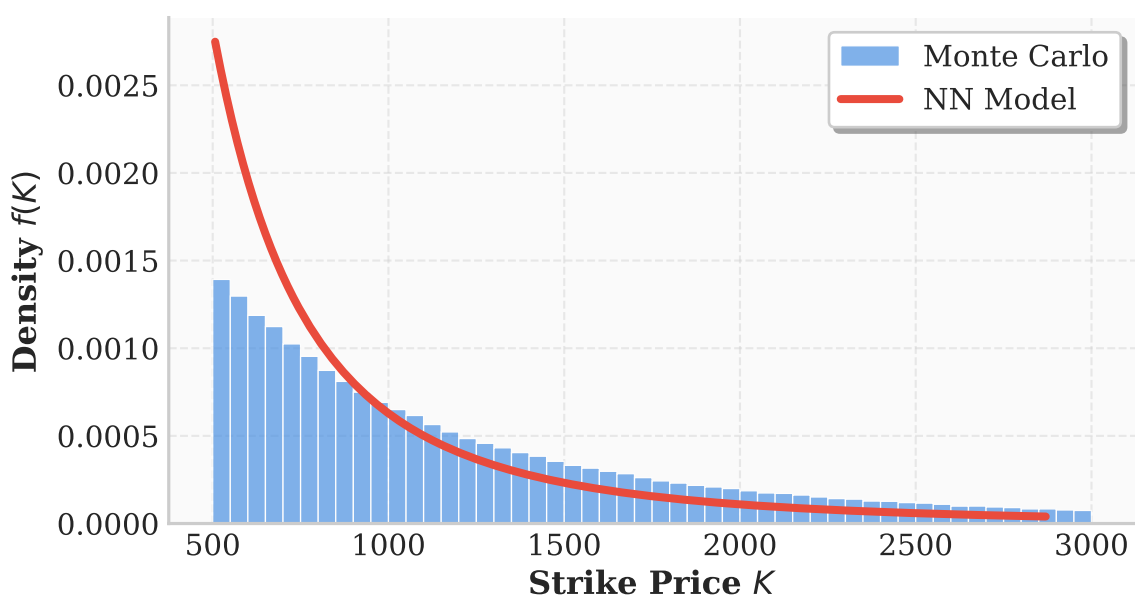
Log-Normal Distribution (T = 0.75)



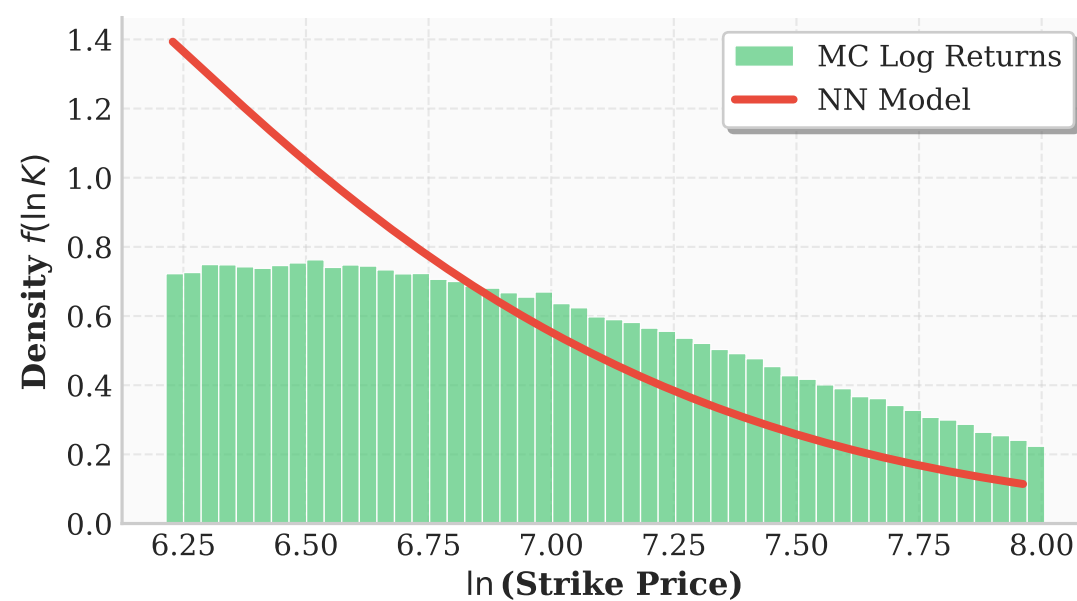
Gaussian Space (T = 0.75)
MC Standardization: $\mu_{MC}=6.56, \sigma_{MC}=0.87 \rightarrow x_{MC} \sim N(0,1)$
Model Fit (truncated): $\mu_{model}=6.75, \sigma_{model}=0.47$
MC Stats: $\mu=0.00, \sigma=1.00, \text{Skew}=-0.00, \bar{\text{ExKurt}}=-0.01$



Strike Distribution (T = 1.00)



Log-Normal Distribution (T = 1.00)



Gaussian Space (T = 1.00)
MC Standardization: $\mu_{MC}=6.45, \sigma_{MC}=1.00 \rightarrow x_{MC} \sim N(0,1)$
Model Fit (truncated): $\mu_{model}=6.77, \sigma_{model}=0.48$
MC Stats: $\mu=-0.00, \sigma=1.00, \text{Skew}=-0.00, \bar{\text{ExKurt}}=0.00$

