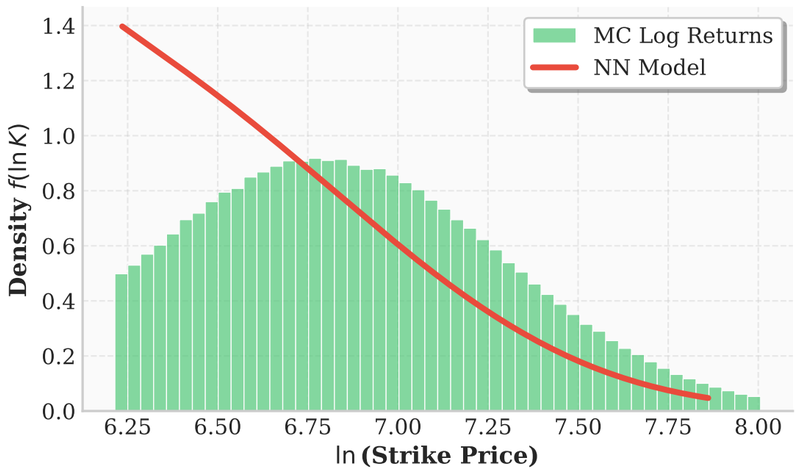
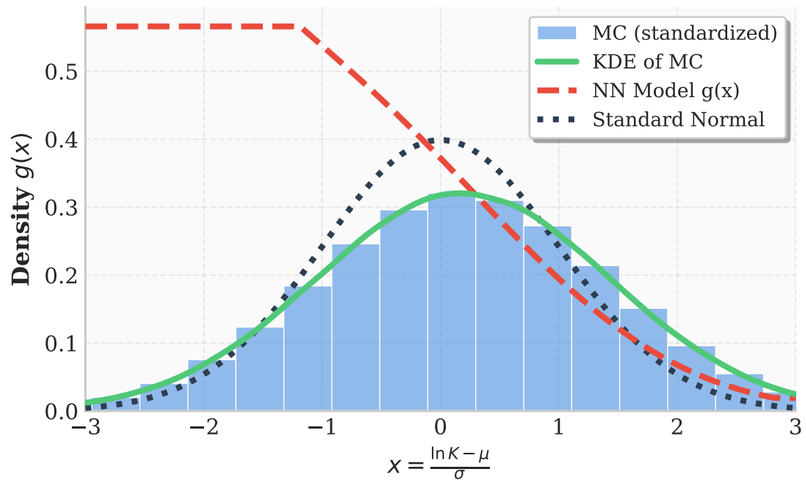
PDF Analysis: Neural Network Synthetic Local Volatility Model
Monte Carlo with $dS_t = rS_t dt + \sigma_{NN}(t, S)S_t dW_t$

Strike Distribution (T = 0.25)

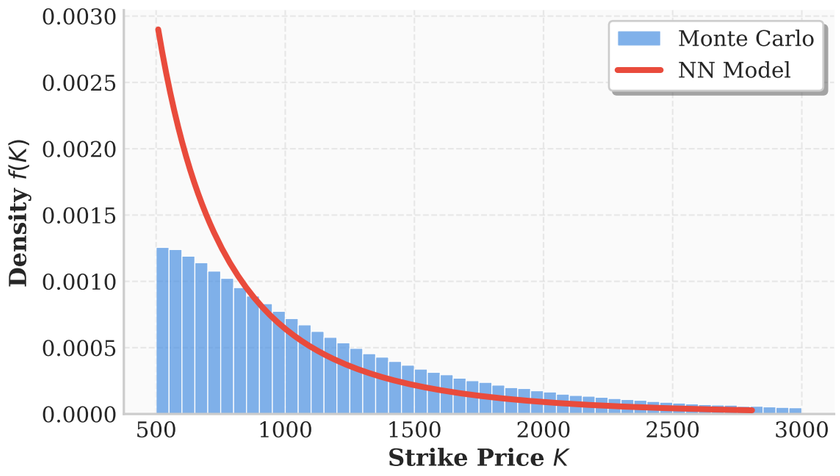
Log-Normal Distribution (T = 0.25)



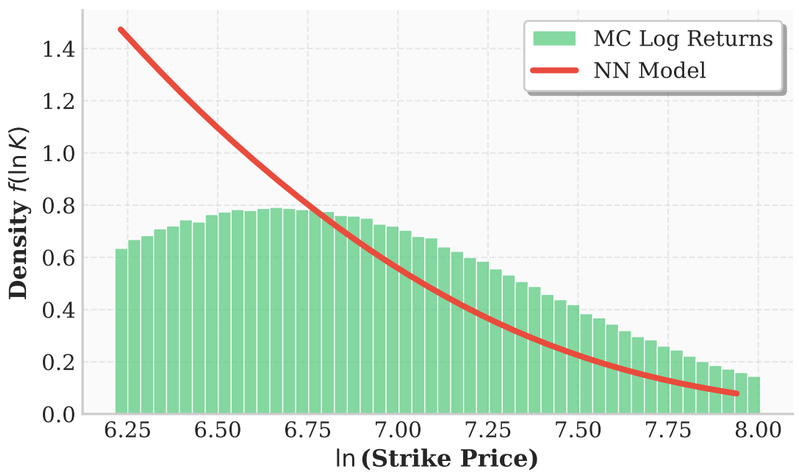
Gaussian Space (T = 0.25)
Fitted: μ=6.72, σ=0.41 → Standardized N(0,1)
MC Stats: μ=0.19, σ=1.24, Skew=-0.01, ExKurt=-0.00



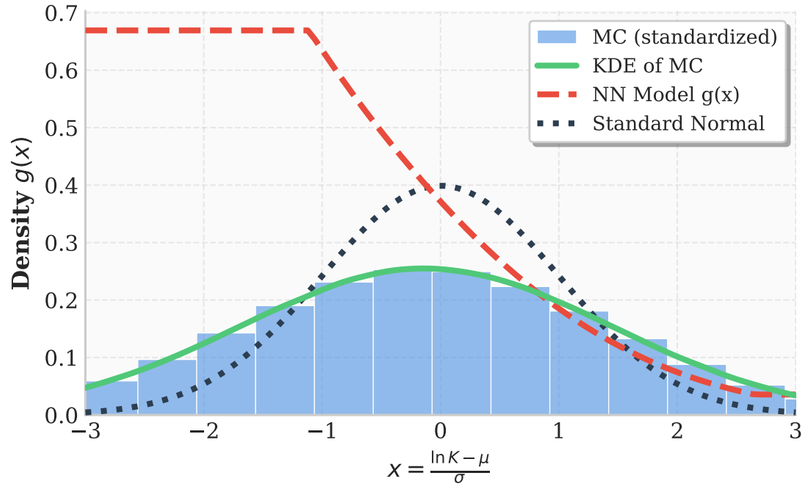
Strike Distribution (T = 0.50)



Log-Normal Distribution (T = 0.50)



Gaussian Space (T = 0.50)
Fitted: μ=6.74, σ=0.45 → Standardized N(0,1)
MC Stats: μ=-0.13, σ=1.56, Skew=-0.01, ExKurt=-0.01

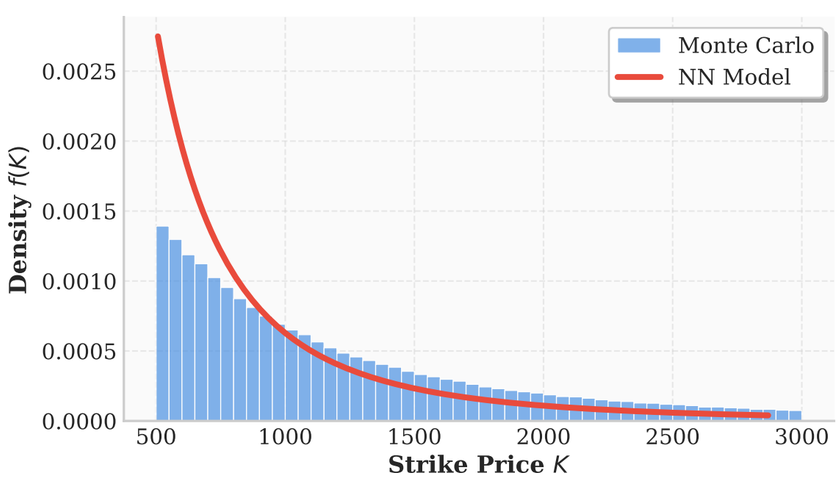


Strike Distribution (T = 0.75)

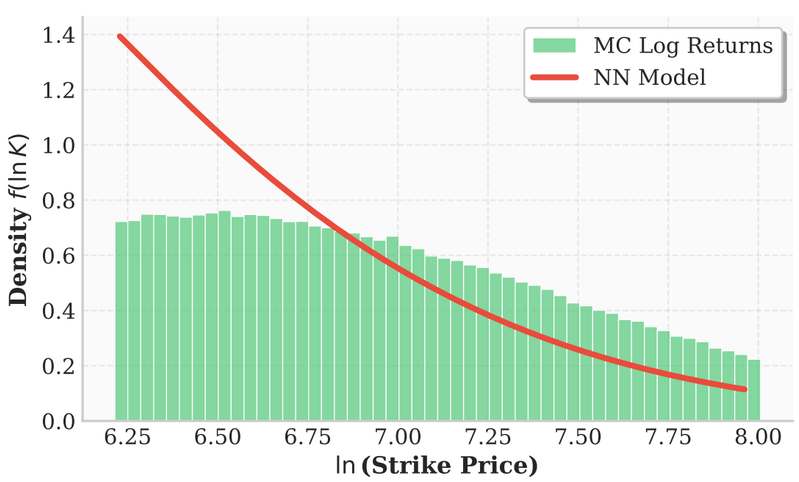
Log-Normal Distribution (T = 0.75)

Gaussian Space (T = 0.75)
Fitted: μ=6.75, σ=0.47 → Standardized N(0,1)
MC Stats: μ=-0.40, σ=1.85, Skew=-0.00, ExKurt=-0.01

Strike Distribution (T = 1.00)



Log-Normal Distribution (T = 1.00)



Gaussian Space (T = 1.00)
Fitted: μ=6.77, σ=0.48 → Standardized N(0,1)
MC Stats: μ=-0.67, σ=2.10, Skew=-0.00, ExKurt=0.00