Pricing equity options with slippage cost

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Slippage can be defined as the difference between the price of a security when an order is established and its price when the order is actually executed. In practice, it is an important component of the total cost function that investors face when hedging financial derivatives, which could lead to disturbances in the standard hedging strategy "à-la-Black-Scholes". The scarce literature on this topic has reached solutions by incorporating this effect as a liquidity cost. Our objective here is to explore different alternatives to those already studied by, for example, implementing stochastic delay differential equations (SDDEs), among others.

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