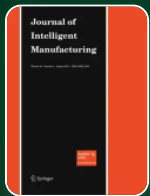


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Optimal dealer pricing under transaction uncertainty

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Abstract

Dealers in securities markets are standing ready immediately to trade certain amounts of securities at stated bid and ask prices. This paper assumes that the amount of transactions follows an uncertain mean-reverting process associated with the bid and ask prices. In order to maximize the dealer's total wealth, an optimal dealer pricing model under transaction uncertainty is established. And the optimal bid price and ask price over time are derived. Finally, the variations of the optimal bid and ask prices with different parameters are presented.

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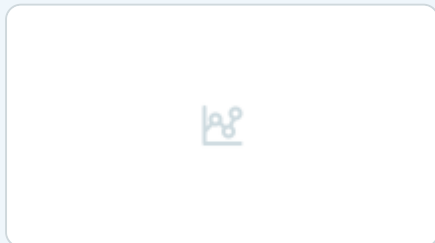
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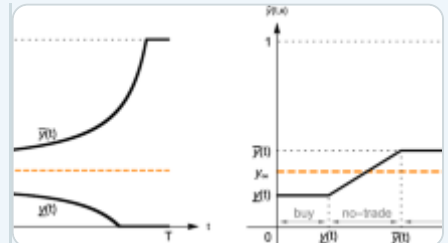
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