Stochastic Inventory Routing Problem with Transshipment Recourse Action

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Abstract

Evolution of emerging technologies of Freight ITSs requires research and development of new models and algorithms that can incorporate their advantages. Stochastic vehicle routing is considered as a methodological approach that seems to be the most promising to account for inherent uncertainties to the freight system. In this context this paper proposes a stochastic programming model with recourse for the VRP. Feasibility and optimality considerations are discussed. The importance of incorporating randomness in the model is considered and the expected value of perfect information is evaluated.

Treat abstract

A stochastic vehicle routing model and its specifications

Invited abstract in session **HB-16: Practical Routing Problems under Uncertainty**, stream **Routing Problems**.

Area: Location, Logistics, Transportation

Thursday, 10:30-12:00
Room: G5-7

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Abstract

Evolution of emerging technologies of Freight ITSs requires research and development of new models and algorithms that can incorporate their advantages. Stochastic vehicle routing is considered as a methodological approach that seems to be the most promising to account for inherent uncertainties to the freight system. In this context this paper proposes a stochastic programming model with recourse for the VRP. Feasibility and optimality considerations are discussed. The importance of incorporating randomness in the model is considered and the expected value of perfect information is evaluated.

Keywords

- Programming, Stochastic
- Routing
- Transportation and Logistics

Status: accepted