

The equilibrium of maritime transport under disaster effects: The case of COVID-19

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ABSTRACT

Ensuring traffic flows remain in equilibrium is crucial in preventing congestion and disruptions in maritime transport chains. Using the fuzzy linear programming method, this article examines how COVID-19 risks have affected the concentration and capacity of maritime cargo flows. The study presents the model, the computational process, and its applications, assessing the transport system's degree of imbalance in 2020-2021 compared to 2018-2019. The model allows for the evaluation of multiple dimensions to obtain an aggregative result. The model provides insights into the dynamics of changes in maritime traffic under the influence of COVID-19.

Keywords: Intuitionistic Fuzzy Rough, maritime transport, transport equilibrium, seaborne trade, port calls