

# Simulation Optimization for Emergency Strategy of Berth Scheduling in the Port

*Completed Research Paper*

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## **Abstract**

*In order to solve the berth emergency scheduling problem of the ships stranded in the port, a simulation optimization model is established to minimize the completion time of the ships. The combination of genetic algorithm and simulation technology is used with the full consideration of preparation time and failure rate of the equipment, so that the completion time is closer to the actual situation. Finally, the optimal parking position and scheduling scheme of the ships are obtained, and an example is given to demonstrate the feasibility of the proposed method, which has guiding the significance for the port to arrange the operating time more reasonably.*

**Keywords:** Berth emergency scheduling, Genetic algorithm, Simulation, Optimization