Poster Presentation

Sun. Nov 2, 2025 1:00 PM - 1:50 PM JST | Sun. Nov 2, 2025 4:00 AM - 4:50 AM UTC | venue(Kanamori sangyo hall)
[P2] ポスター発表 #2

[P2-07] Mobility Patterns of Trailers Transporting Containers and Hinterland Structures of Major Ports in Northeastern Japan

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Keywords：freight logistics、container transfer、mobility analysis、ETC2.0 data、port area、port hinterland

Ports are gateways linking maritime and inland transport and play a key role in regional economies as well as international trade. Container trailers connect ports with domestic logistics, and analyzing their mobility is essential to understand container flows even internationally. This study uses ETC2.0 data to analyze trailer movements in major ports in northeastern Japan. First, trip extraction methods from human mobility studies are applied to ETC2.0 data to construct trailer trip chains, revealing attributes of stopped locations made before and after the container terminals, night parking, and empty container flows. Second, trailer flows are used to delineate port hinterlands and to compare their size and overlap. The results reveal functional differences among ports, reflecting competition and complementarity. This study provides new evidence on detailed trailer mobility and port–hinterland relations in Tohoku, offering insights for logistics planning and port policy.

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