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Data/Knowledge-Driven Behaviour Analysis for Maritime Autonomous Surface Ships

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Deadline for manuscript submissions:

closed (15 June 2022)

Message from the Guest Editors

Dear Colleagues,

Understanding, modeling, and predicting ship behavior are fundamental and essential issues for planning, controlling, and operating different levels of maritime autonomous surface ships (MASS). The maritime traffic data (e.g., radar data, AIS data, CCTV data) provide designers, officers on watch, and traffic operators with extensive information about the states of ships at present and in history, which are a treasure for behavior analysis. Thus, this Special Issue aims to provide a medium to present the latest developments on methods and tools suitable for relevant issues, including but not limited to:

- Data-driven behavior modeling and simulation;
- Knowledge-driven behavior modeling and reasoning;
- Multisource heterogeneous traffic data fusion;
- Semantic analysis of ship behaviors;
- Quantifying COLREGs and seamanship for machine;
- Inference engine and ontology reasoning for rulecompliant MASS;
- Intention inference based on behavior observations;
- Maritime traffic situational awareness;
- Multiagent simulation;
- Risk analysis and management of MASS;
- Safety and cybersecurity of MASS.











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Message from the Editor-in-Chief

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