



Ocean Environment Modelling and Air Emissions from Shipping

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Message from the Guest Editors

Shipping carries almost 90% of worldwide trade, emitting significant amount of air pollutants into the atmosphere including carbon dioxide, black carbon, NO_x and SO_x. The air emissions released from ships have a significant impact on climate change, ocean acidification, and pose a threat to public health and welfare. The climate change also results in more severe sea conditions that may challenge a ship's safety when sailing at sea.

The open-access journal Atmosphere is hosting this special issue to Ocean environment modelling and air emissions from shipping, to promote measures for decarbonizing shipping.

Solicited contributions include but not limit to: statistical modelling of wind and waves, spatio-temporal modelling of air emissions due to transport, monitoring of air emissions from shipping, extreme sea conditions due to climate change, study of air emission reduction due to renewable propulsions, various energy efficiency measures to decarbonize shipping. Papers on measures and models to evaluate fuel and air emissions from shipping, climate impact from arctic shipping, as well as barriers to fossil free shipping are also welcome.





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Editor-in-Chief

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Message from the Editor-in-Chief

Continued developments in instrumentation and modeling have driven atmospheric science to become increasingly more complex with a deeper understanding of concepts, mechanisms, and interactions. This is the field that innovation built and it has led to a better appreciation for the complexity with atmosphere. Human life is intertwined in this complexity as we strive to better understand our atmosphere. Climate change is constantly stretching the limits of our thinking and forcing new ideas and concepts to be played out. Welcome to the Anthropocene!

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