# Special Issue

## Air-Water Gas Exchange in Coastal Ocean

### Message from the Guest Editor

Quantifying the air-sea exchanges of reactive trace gases and factors that control them is critical to understanding of climate-related processes and regional to global biogeochemical cycles. For trace gases estuaries and coastal seas are “hot spots”, characterised by high rates of biogeochemical cycling, and large emissions to air. High spatial and temporal variability are characteristic features, reflecting strong gradients in biology, biogeochemistry, and the environmental controls of air-sea gas exchange rates. There remains considerable uncertainty over the scales of these variabilities and how they are mediated. This should be urgently addressed because the biogeochemical models and largescale climate models that crucially depend on this information are central to developing the predictive capacity needed for quantifying regional and global scale trace gas fluxes and feedbacks. The broad remit of the special issue thus includes observational and modelling studies that improve estimates of fluxes and clarify the underlying biogeochemical and physical drivers.

### Guest Editor

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### Deadline for manuscript submissions

closed (31 January 2022)

**Journal of Marine Science and Engineering**

an Open Access Journal by MDPI

Impact Factor 2.8
CiteScore 5.0

mdpi.com/si/83314

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## About the Journal

### Message from the Editor-in-Chief

*Journal of Marine Science and Engineering* (*JMSE*, ISSN: 2077-1312) focuses on research in the fields of Ocean Engineering, Coastal Engineering, Physical Oceanography, Geological Oceanography, Marine Biology, and Marine Environmental Science. It publishes reviews, regular research papers, and short communications, as well as Special Issues on particular subjects. Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the maximum length of the papers.

### Editor-in-Chief

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