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# Study of Lagoons and Other Shallow Water Bodies Through the Application of Numerical Models

Guest Editors:

### **Message from the Guest Editors**

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Deadline for manuscript submissions: closed (20 December 2019) Numerical modeling, from hydrodynamics to population dynamics, eutrophication processes, food webs or ecosystem services, has become an important tool in the environmental sciences. Modeling can be used to integrate observations interpolate these data in the spatial and temporal dimension. However, modeling can also be used for forecasting and "what-if" predictions. Modeling in transitional areas, such as lagoons and coastal zones, show big differences with respect to the open sea. The strong influence of land-based inputs, the relative importance of sediments and the atmosphere, and manmade influences on the water bodies distinguish these areas from open waters and ask for different techniques in modeling. Especially, the use of unstructured numerical grids allows a faithful reproduction of the spatial complexity found in transitional areas. Finally, integration of different models is needed to describe the complexity of processes that are occuring in lagoons and the coastal zone. Special focus should be given to ensure that these models work smoothly together.









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## **Editor-in-Chief**

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## Message from the Editor-in-Chief

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