



## Earth System Modeling, Data Assimilation, Artificial Intelligence, Deep Learning and Ocean Information Engineering

Guest Editors:

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Deadline for manuscript  
submissions:

**closed (1 October 2022)**

### Message from the Guest Editors

Dear Colleagues,

In this Special Issue, we call for papers that deal with recent advances in modeling, data assimilation, and parameter estimation, as well as AIDL-associated research and development in geoscience research and applications, including advanced modeling, data assimilation, and deep neural network algorithms, data mining in the Earth system, as well as advanced topics such as data-based parameter optimization, AIDL-induced parameterization, etc. Potential topics include but are not limited to: Modeling, data assimilation, and parameter estimation; Bayes' theorem-based AIDL algorithms; Data-assimilation-induced AIDL algorithms; Model parameter estimation and AIDL; Advanced deep neural network algorithms; Climate downscaling and evaluation with neural networks; AIDL-induced climate and chemistry modeling and parameterization; Advanced AIDL algorithms induced from modeling mesoscale to sub-mesoscale physical processes; AIDL-driven cloud and microphysics expressions; Data-based parameter optimization applied to AIDL algorithms; Data mining in the Earth system (e.g., optimal translation of native Earth system observations into user-specific information).





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## Editor-in-Chief

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## Message from the Editor-in-Chief

The *Journal of Marine Science and Engineering* (JMSE; ISSN 2077-1312) is an international peer-reviewed open access journal which provides an advanced forum for studies related to marine science and engineering. The journal aims to provide scholarly research on a range of topics, including ocean engineering, chemical oceanography, physical oceanography, marine biology and marine geosciences. We invite you to publish in our journal sharing your important research findings with the global ocean community.

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