



## Statistical Advances in Environmental Sciences

Guest Editors:

**Prof. Dr. E. Marian Scott**

**Dr. Craig Anderson**

**Prof. Dr. Claire A. Miller**

**Dr. Ruth A. O'Donnell**

Deadline for manuscript  
submissions:

**closed (20 September 2022)**

### Message from the Guest Editors

The digital environment is a phrase that has been coined describing the vision of distributed networks of sensors, earth observation, citizen science and traditional monitoring schemes to provide a rich and dynamic representation of our environment and the changes occurring within it. Such diverse data streams present statistical challenges including, but not limited to, high dimensionality, differing spatial and temporal support, data fusion and assimilation. Effective environmental decision making relies on fusing different data streams; combining data from different sources has the potential to significantly reduce the uncertainty in model parameter estimates when making predictions. Data communication, quality assurance and anomaly detection, predictive analytics and visualisation, quantifying **uncertainty** and dealing with **large volumes and flow of data** to develop decision support systems are all elements essential to the digital environment.

This Special Issue seeks papers on statistical and analytical solutions to these and other challenges, as well as illustrative case studies.





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## Editor-in-Chief

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## Message from the Editor-in-Chief

Addressing the environmental and public health challenges requires engagement and collaboration among clinicians and public health researchers. Scientific discoveries and advances in this research field play a critical role in providing a rational basis for informed decision-making toward control and prevention of human diseases, especially the illnesses that are induced from environmental exposure to health hazards.

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