Special Issue

Lake Surface Water Temperature Trend as an Indicator of Global Warming

Message from the Guest Editor

In recent years, our planet has experienced some of the warmest air temperatures ever recorded, accompanied by record-breaking weather extremes such as powerful storms, severe droughts, and huge wildfires. Lake surface water temperature determines a large variety of physical, chemical, and biological processes in lake water bodies. As a consequence of the air being in contact with the lake water surface, the air-water interaction affects the dynamics and thermodynamics of the air and water boundary layers. Some other atmospheric factors such as cloudiness and winds as well as their trends could contribute to lake surface water temperature and its trend. The aim of this Special Issue is to present studies using a state-of-the-art approach for comprehensively investigating surface temperature trends over lakes and adjacent land areas. This approach is based not only on single-point (buoy) observations, but also on spatially resolved temperature observations from satellites and/or model results.

Guest Editor

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About the Journal

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!

Editor-in-Chief

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