



## Climate and the Oxygen Isotope Patterns from Trees

Guest Editor:

### Message from the Guest Editor

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Stable oxygen isotope patterns from trees have become an indispensable tool for reconstructing hydroclimatic parameters. Oxygen isotope variations are less affected by aging processes and stand dynamic effects than other tree-ring parameters. Due to technological advances, isotope analyses can be pushed to intra-annual resolution, allowing for a very high dating precision. This offers new perspectives for analysing tree responses to extreme climatic events and the underlying atmospheric circulation patterns, and to link stable isotope patterns to tree ecophysiology.

This special issue of *Forests* invites contributions describing new methodological aspects on analysing and interpreting oxygen isotope analyses in tree rings. Of special interest are studies with intra-annual resolution of isotope time series, and linkages of stable isotope patterns with wood formation and tree physiological processes. A special focus underlies climatic causes of tree-ring oxygen isotope patterns, including source water signals, atmospheric circulation, and modifications of isotopic climatic signals by fractionation processes through tree physiological processes.

