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## The WaverideR Package: a tool for cyclostratigraphy, the updated version

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The WaverideR R package was initially developed to use the Continuous Wavelet Transform (CWT) to conduct cyclostratigraphic analyses. In the initial release of the R package, the functions mainly focussed on plotting wavelet scalograms, extracting astronomical cycles from the CWT and to create simple age-models. Over time the WaverideR R package has seen some major updates in capabilities regarding both functionality and visualisation of cyclostratigraphic results. Enhanced visualisation options now allow users to customise wavelet scalograms, with flexible plotting directions and an array colour palettes to create personalised outputs. Existing functions have also been updated, resulting in the elimination of bugs and enhanced computational efficiency. New functionalities have also been added, including Monte-Carlo modelling functions that allow the use of multi-proxy datasets to create an astrochronology including uncertainty, calculate the duration of a hiatus and anchor an astrochronology to a single absolute age date. In conclusion the updated WaverideR package contains many new functionalities that are complementary to existing cyclostratigraphy R codes/packages.