



Global scope of land surface hydrology signal recovery from multi-mission satellite radar altimetry

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Data from a series of satellite radar altimeters are increasingly being used to provide information on river and lake heights. In general, these analyses are restricted to a small number of large targets, from which data can be retrieved using existing processing schemes. This paper presents a global analysis of the inland water signals which can be retrieved from satellite altimeter data when the data are reprocessed using an expert system approach. Many thousands of individual time series have been generated, spanning more than a decade, from ERS-1/2, Topex/Poseidon, Envisat and Jason-1. The creation of this vast database has provided a unique resource that now allows measurement and monitoring of land surface hydrology on a global scale.