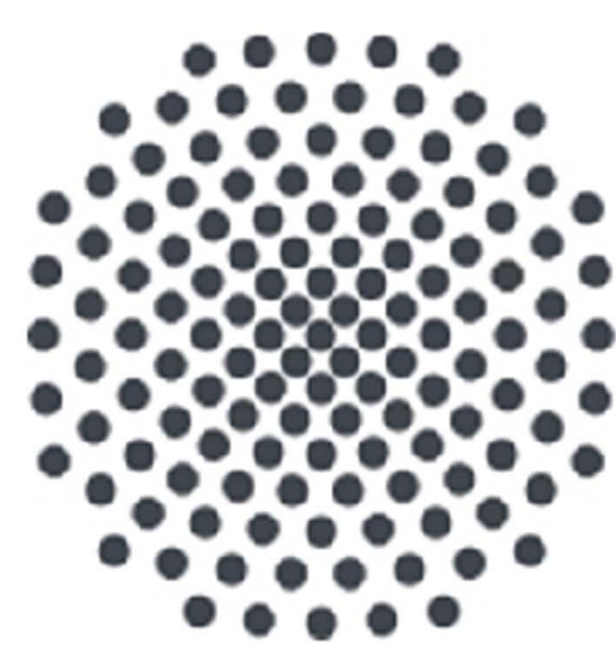


HydroSat

a repository of global water cycle products from spaceborne geodetic sensors



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Against the backdrop of global change, both in terms of climate and demography, there is an increasing need for monitoring the global water cycle. The publicly available global database is very limited in its spatial and temporal coverage. Moreover, the acquisition of in situ data and their delivery to the database are on the decline since the late 1970s be it for economical, political or other reasons. Given the insufficient monitoring from in situ gauge networks, and without any outlook of improvement, spaceborne approaches are currently being investigated.

Satellite-based Earth observations with their global coverage and homogeneous accuracy have been demonstrated to be a potential alternative to in situ measurements. The Institute of Geodesy at University of Stuttgart (GIS) has a long-standing expertise, both theoretically and practically, in dynamic satellite geodesy. In recent years, GIS initiated and participated in studies and projects on the application of spaceborne geodetic sensors for hydrological studies. The results of these studies and projects are now available at the HydroSat website.

HydroSat

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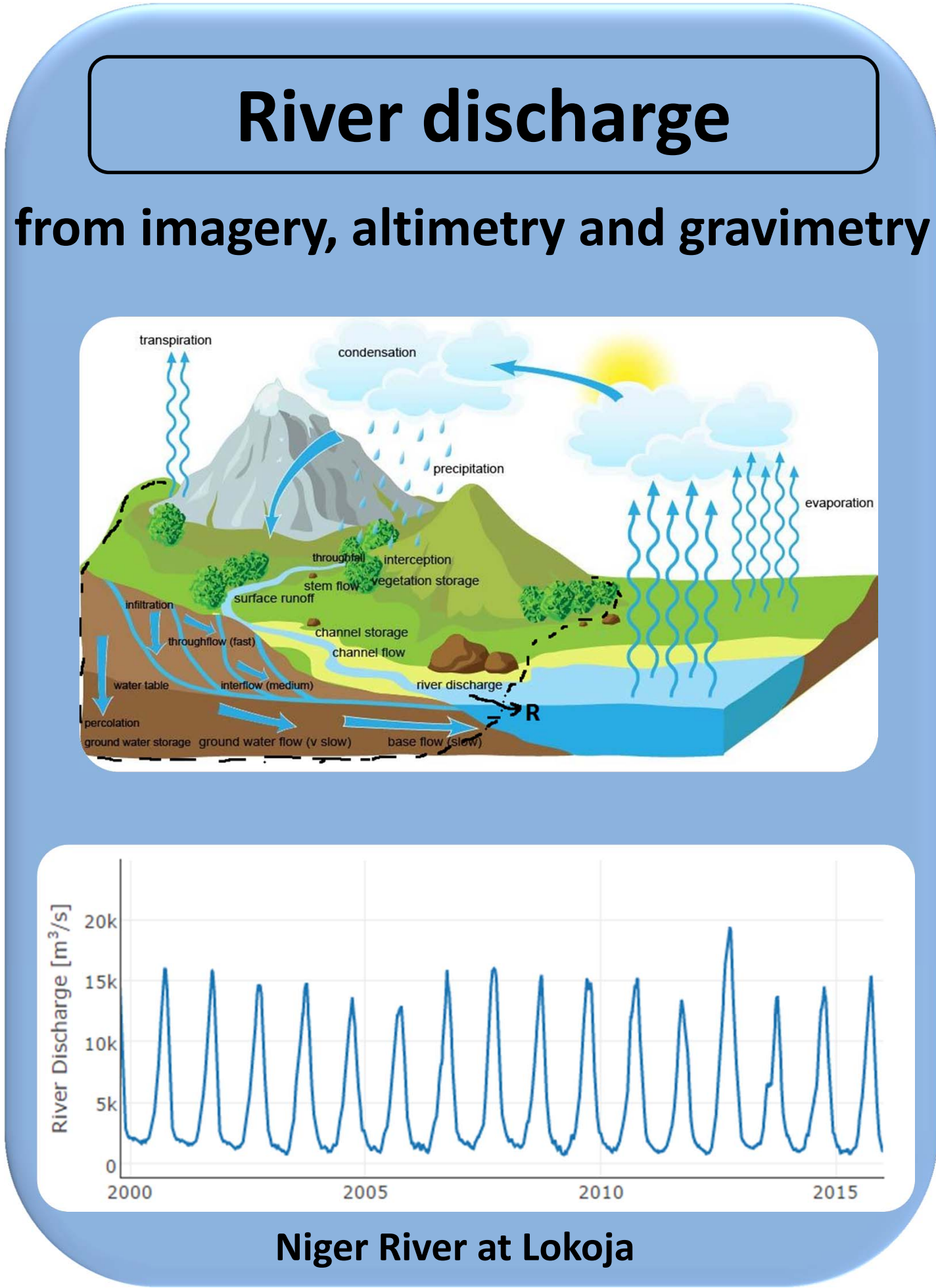
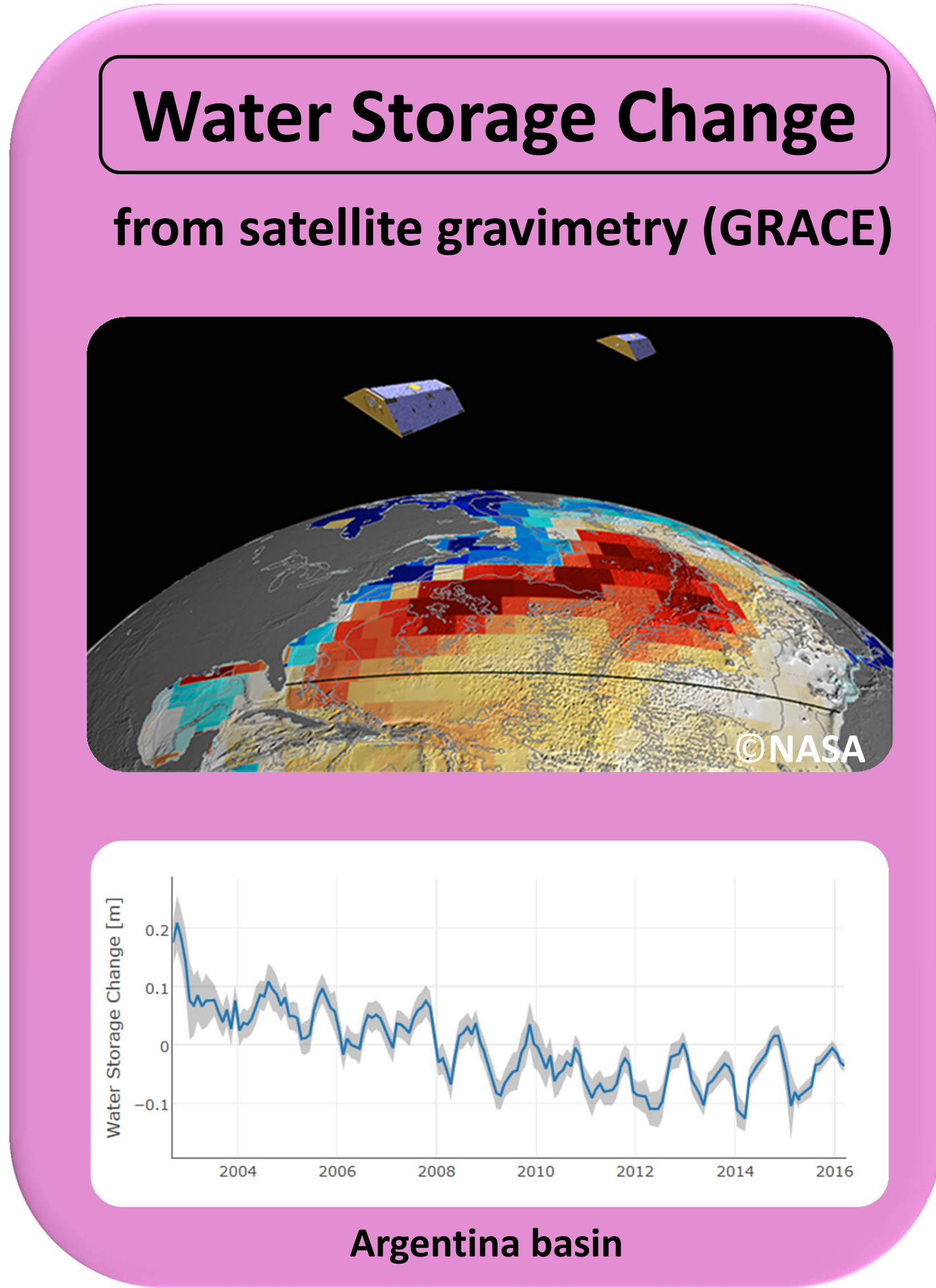
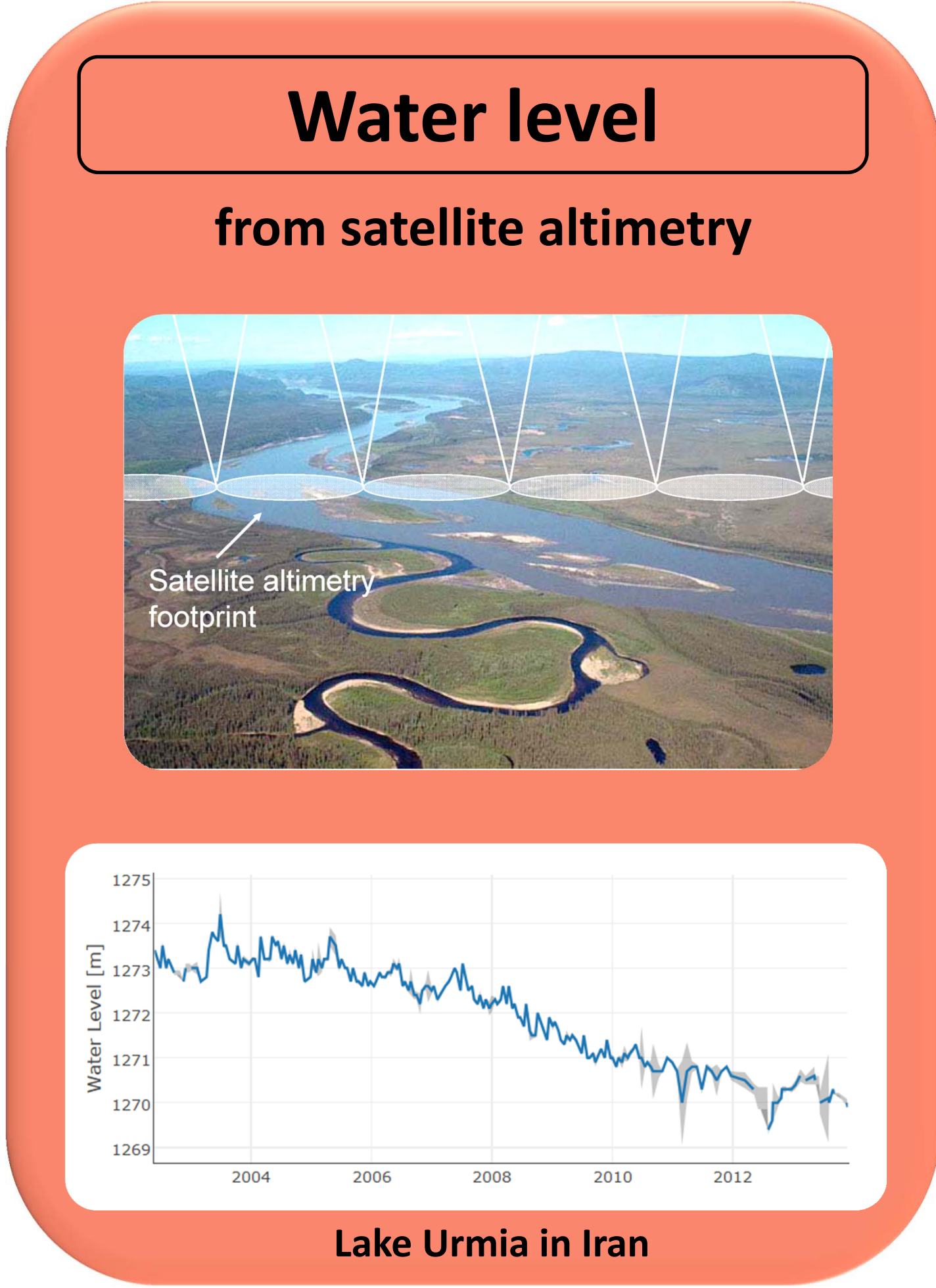
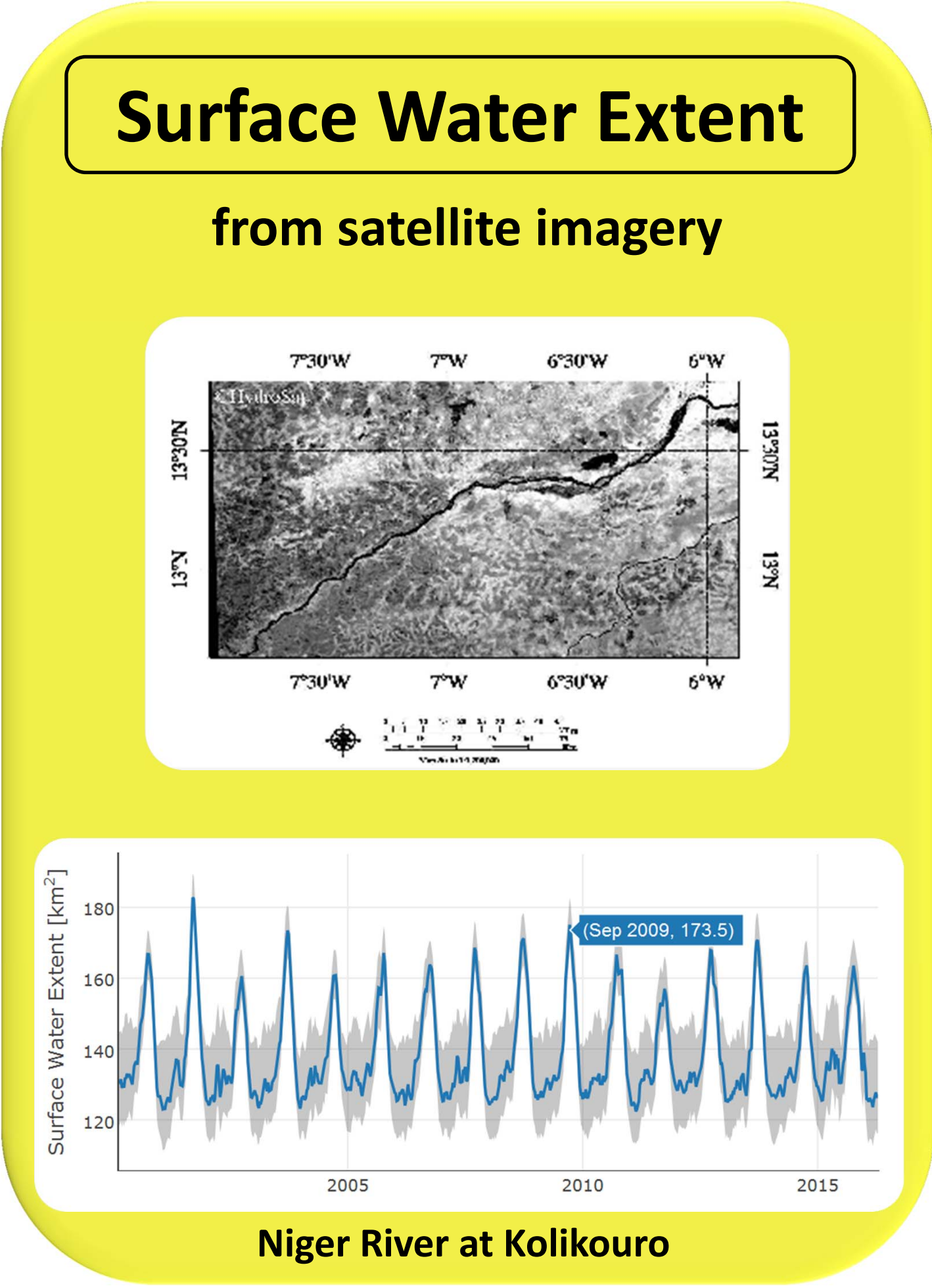
Surface Water Extent

Water Level

Water Storage Change

River Discharge

● Surface Water Extent ● Water Level ● Water Storage Change ● River Discharge



Interactive time series

Time series with uncertainty

Freely available