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Application of RGeostats on oceanographical data

The objective is to build and deploy a new geostatistical library «as-a-service» for scientists analyzing, interpolating and presenting oceanographic data

This work demonstrates a case study using RGeostats on

- Analysis of oceanographical data from an IMR database
- Presentation of spatial and temporal correlations
- Mapping multiple variables
- Combining different data sources

RGeostats is the Geostatistical Package (under [R platform](#)) developed by the Geostatistical Team of the [Geosciences Research Center](#) of MINES ParisTech.

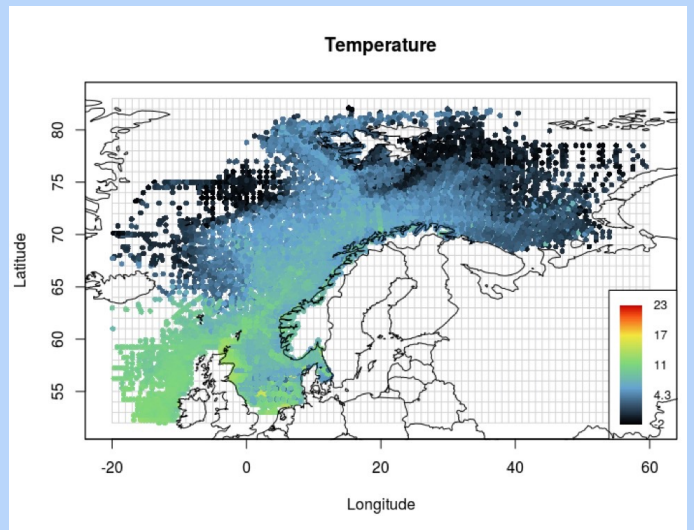


Figure 1. Example of temperature from an IMR database

Examples of applications of RGeostats:

- Temperature interpolation map at a given depth and time interval (Fig. 2)
- Estimation of salinity
- Probability of exceeding a given sea ice thickness
- Evolution of fish density in time
- Seasonal plankton concentration

Users include

- Scientists, Companies, NGOs, national and EU agencies working with climatology, meteorology, biology, oceanography, pollution, tourism and environmental management.

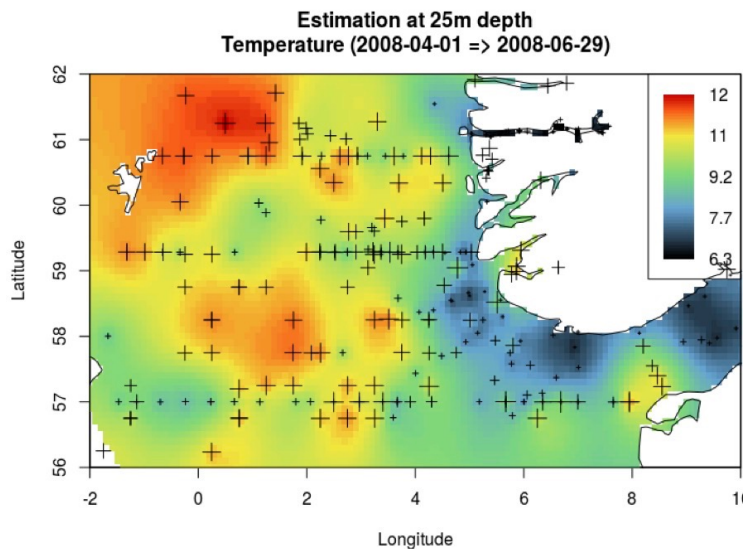


Figure 2. Example of temperature interpolation map of ocean temperature at 25 m depth.



Contributor: Hervé Caumont, Terradue

