SeaDataNet

PAN-EUROPEAN INFRASTRUCTURE FOR OCEAN & MARINE DATA MANAGEMENT

WP8 and WP9 developments

Data-Interpolating Variational Analysis (Diva) developments

C. Troupin, A. Barth, M. Ouberdous, A. Alvera-Azcárate & J.-M. Beckers

GHER GeoHydrodynamics and Environment Research

Université de Liège

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Diva related tools

Diva: base tool (command line), 2D analysis

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OceanBrowser: visualisation tool of 4D NetCDF files

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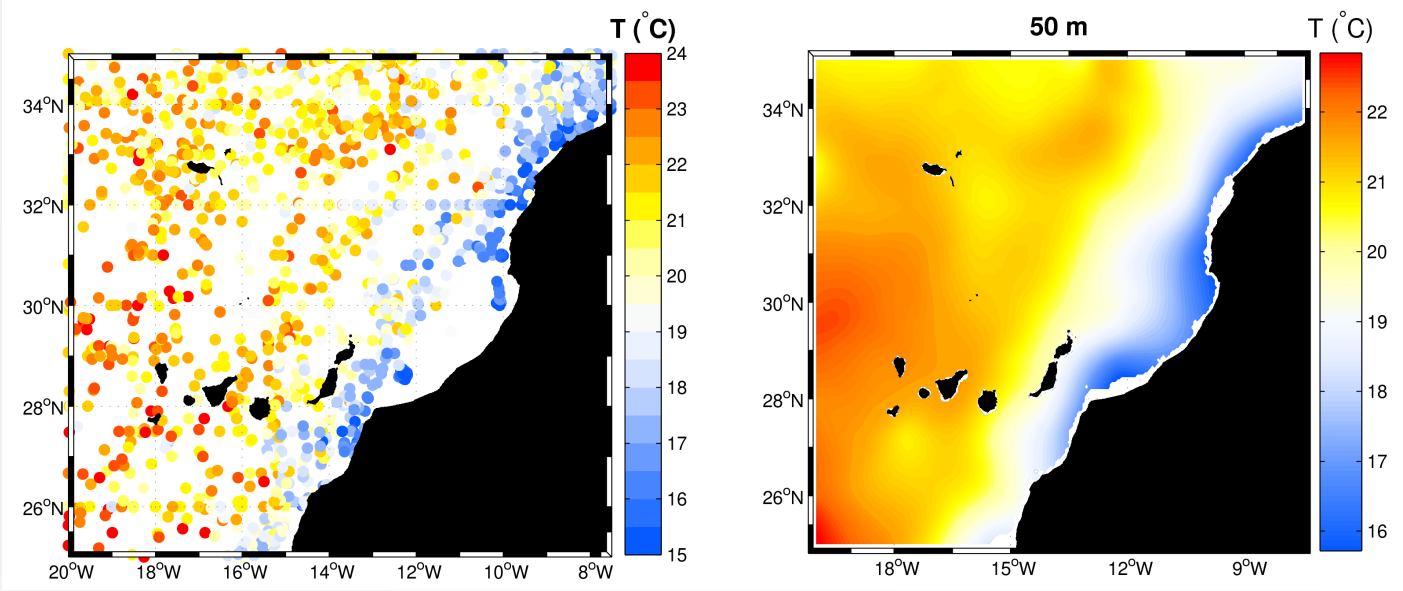
Diva-on-web: 2D analysis with your data on our server

OceanBrowser: visualisation tool of 4D NetCDF files

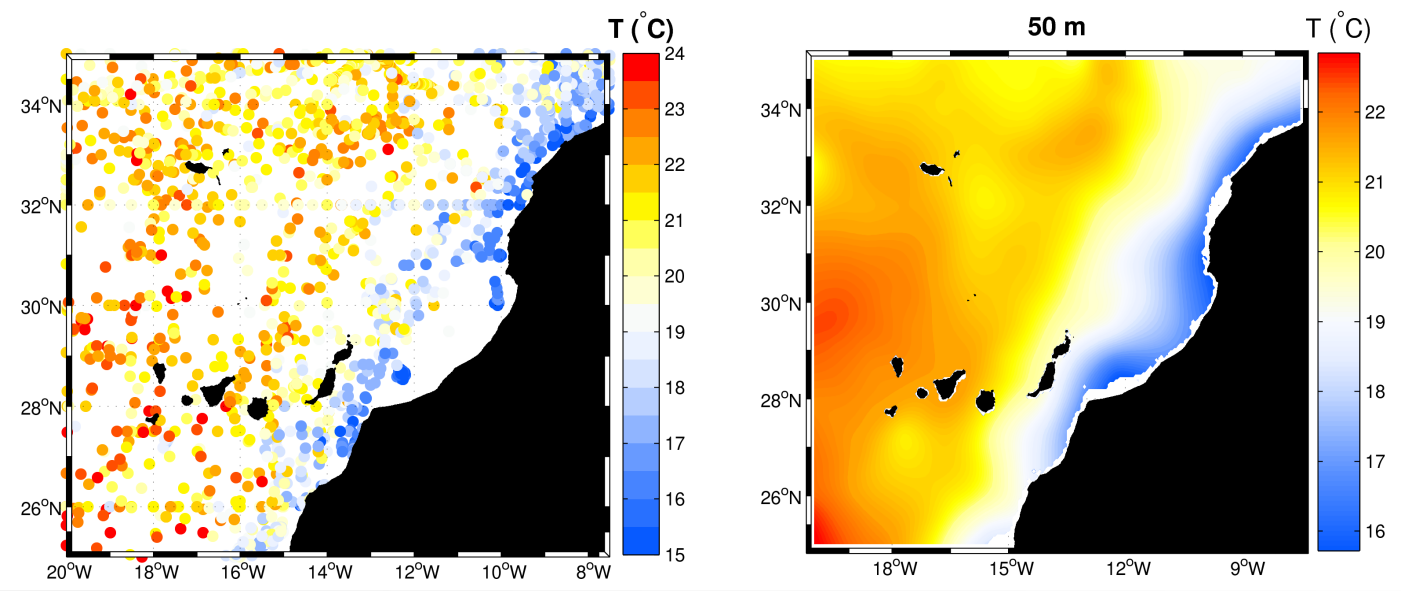
divand: multi-dimension analysis (lon, lat, time, depth)

Diva: an advanced interpolation method for ocean data



Method: minimize cost function (observations, smoothness, physics)

Diva: an advanced interpolation method for ocean data

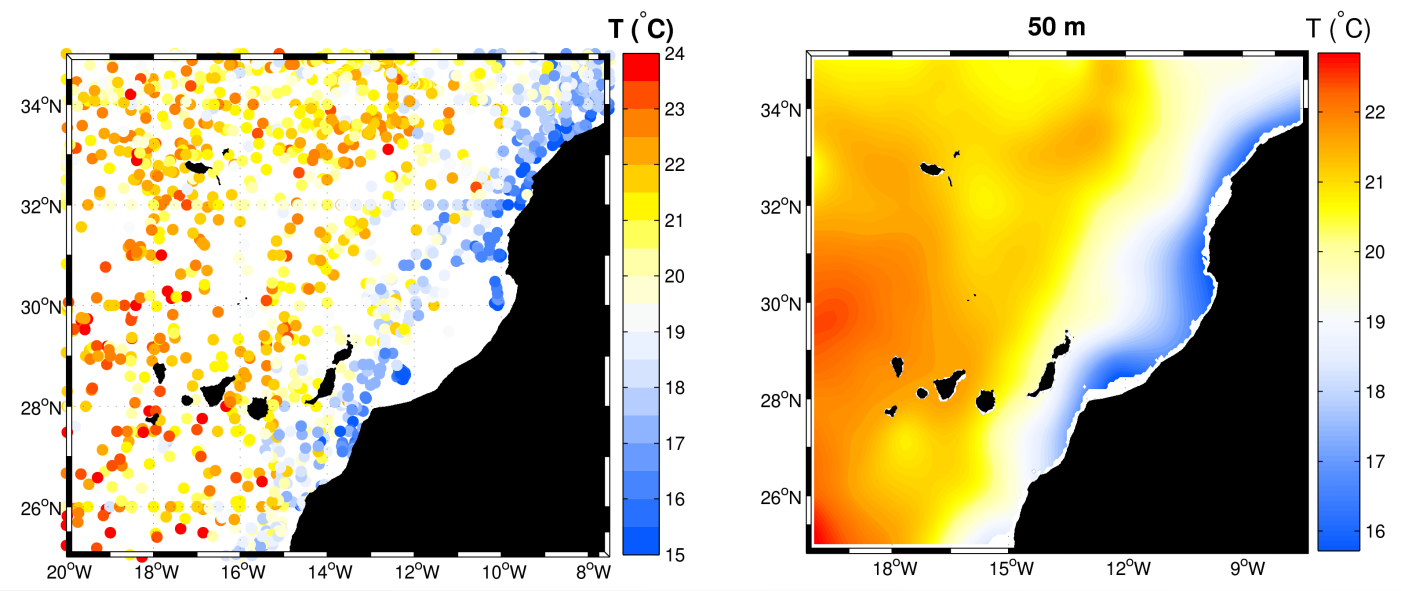


Solver: finite-elements

Numerical efficiency

Domain geometry taken into account

Diva: an advanced interpolation method for ocean data



Implementation: Fortran + bash scripts

Easy adapted for automatic loop

Runs under Linux, Mac-OS & Windows (+ Cygwin)

Diva developments: summary

- Modernisation of the code structure. OK

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- Support for observations in NetCDF format In progress

Test with altimetry data (AVISO) using nco tool box
Future test with World Ocean Database NetCDF files

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Diva developments: summary

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- Support for observations in NetCDF format — In progress
- Multivariate approach — OK
- Non-Gaussian distributed variables — OK
- 4-dimensional generalisation — OK: `divand`

Diva developments: summary

Modernisation of the code structure.	OK
Support for observations in NetCDF format	In progress
Multivariate approach	OK
Non-Gaussian distributed variables	OK
4-dimensional generalisation	OK: `divand`
Spatially correlated observations errors	In progress

Preliminary results available
on-going developments, see afternoon presentation

Diva-on-web & OceanBrowser developments: summary

OceanBrowser:

- Inclusion of external WMS layers OK

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- Inclusion of additional metadata in the NetCDF file produced in the analysis — OK

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OceanBrowser:

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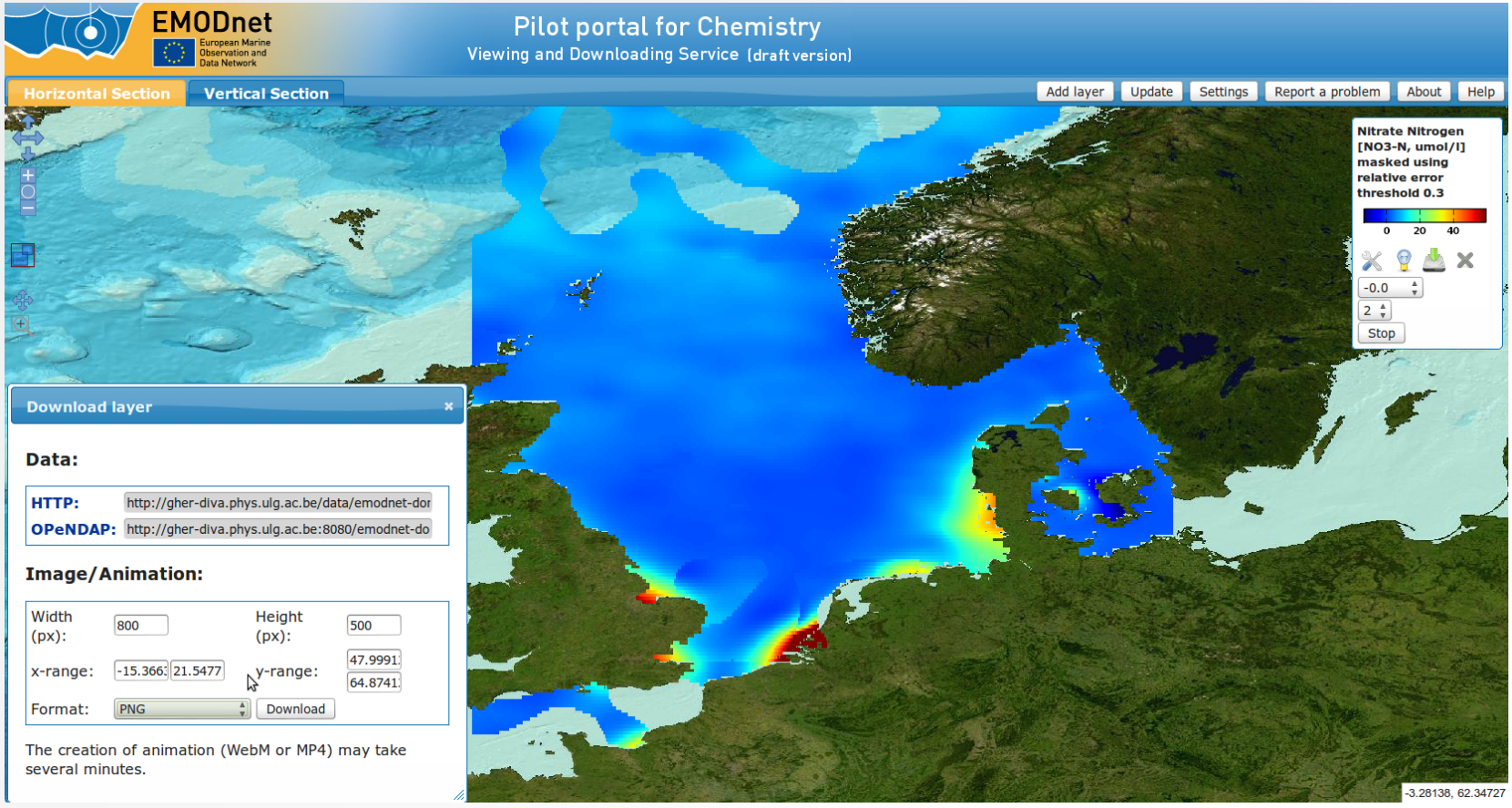
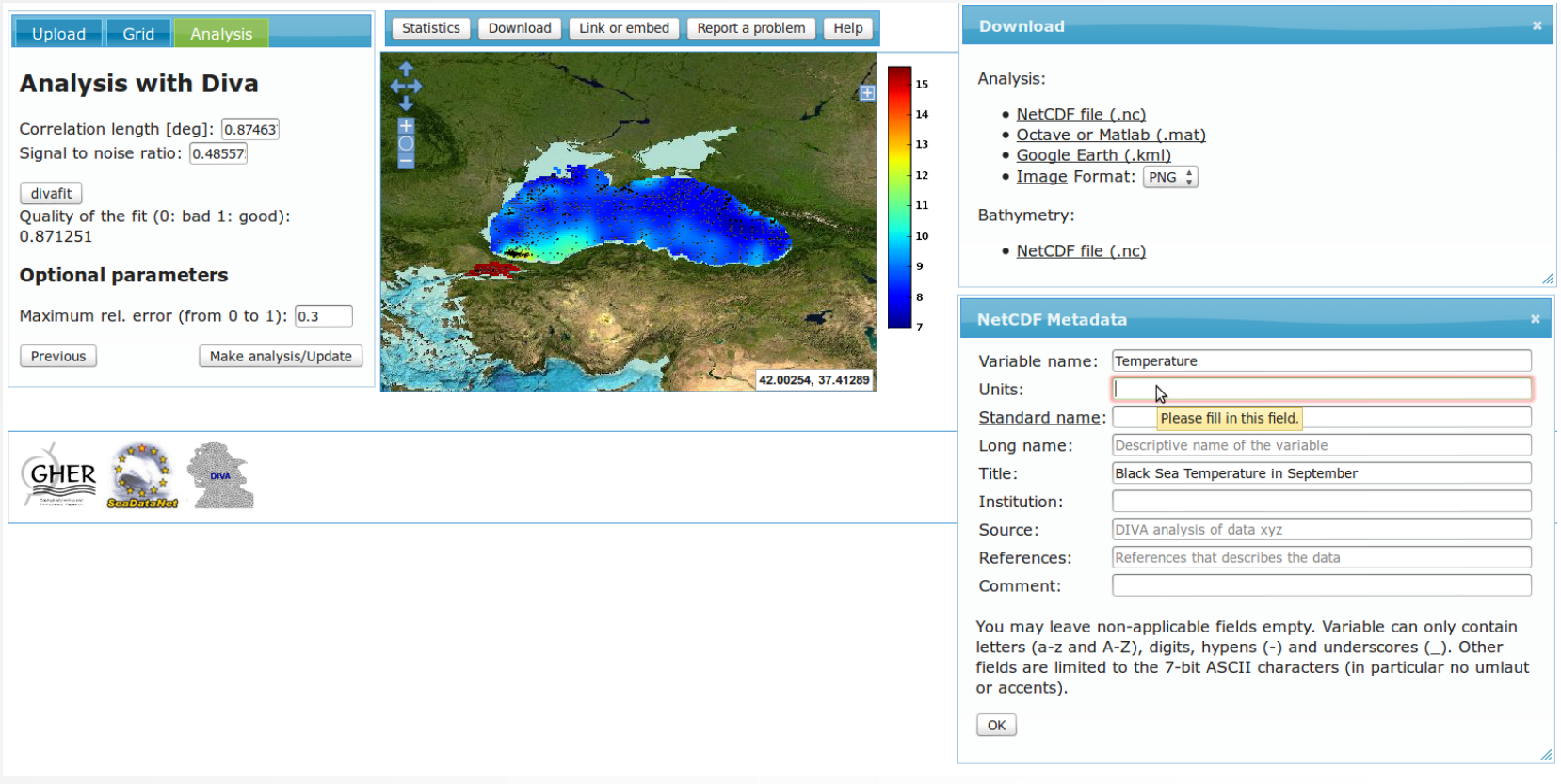
Diva-on-web:

- Inclusion of additional metadata in the NetCDF file produced in the analysis — OK
- Advection constraint — In progress

Diva-on-web & OceanBrowser developments: Animation download (mp4 or webm format)



Diva-on-web & OceanBrowser developments: NetCDF metadata



Deliverables

No.	Object	Delivery date
D9.9	Updated versions and documentation	M 12, 24, 36, 44
D9.10	Report on multi-dimensional analysis and spatially correlated observations errors	M 24
D9.11	New version Diva-on-web: meta-data + advection constraint	M 24
D9.12	New version Diva-OceanBrowser: interact with CDI records	M 24

PAN-EUROPEAN INFRASTRUCTURE FOR OCEAN & MARINE DATA MANAGEMENT

SeaDataNet

Diva workshop

Where? STARESO station (ULg), Calvi, FRANCE

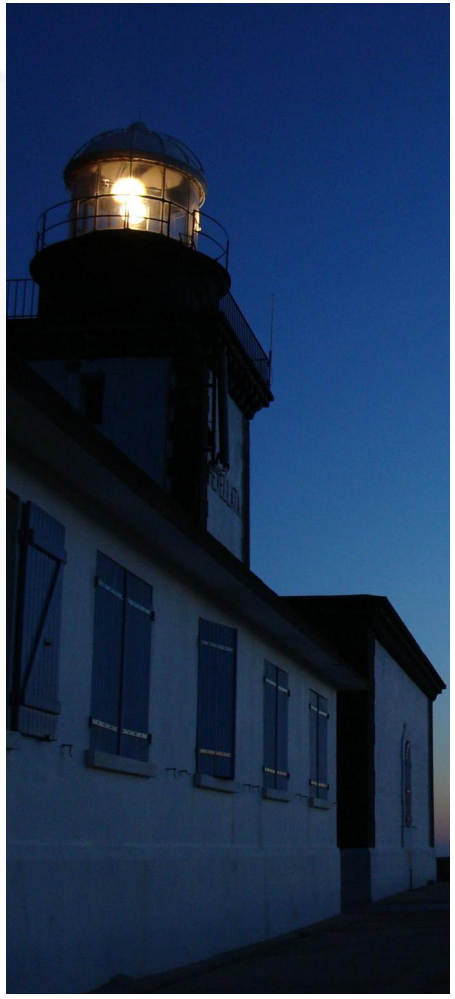
When? **Monday** 4 (arrival) – **Friday** 8 (departure) November 2013

Who? SeaDataNet / EMODnet partners, all levels

What? Installation, test cases, 2D, 3D, 4D, ...

✉ ctroupin@ulg.ac.be

More details: http://modb.oce.ulg.ac.be/mediawiki/index.php/Diva_workshop_2013_Stareso



SeaDataNet

Thank you

More information
this afternoon.