



WP 1.3

Sistemi osservativi marini e ricostruzione climatica

WP 2.2

Archivio delle reti osservative marine e ricostruzioni climatiche

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INGV

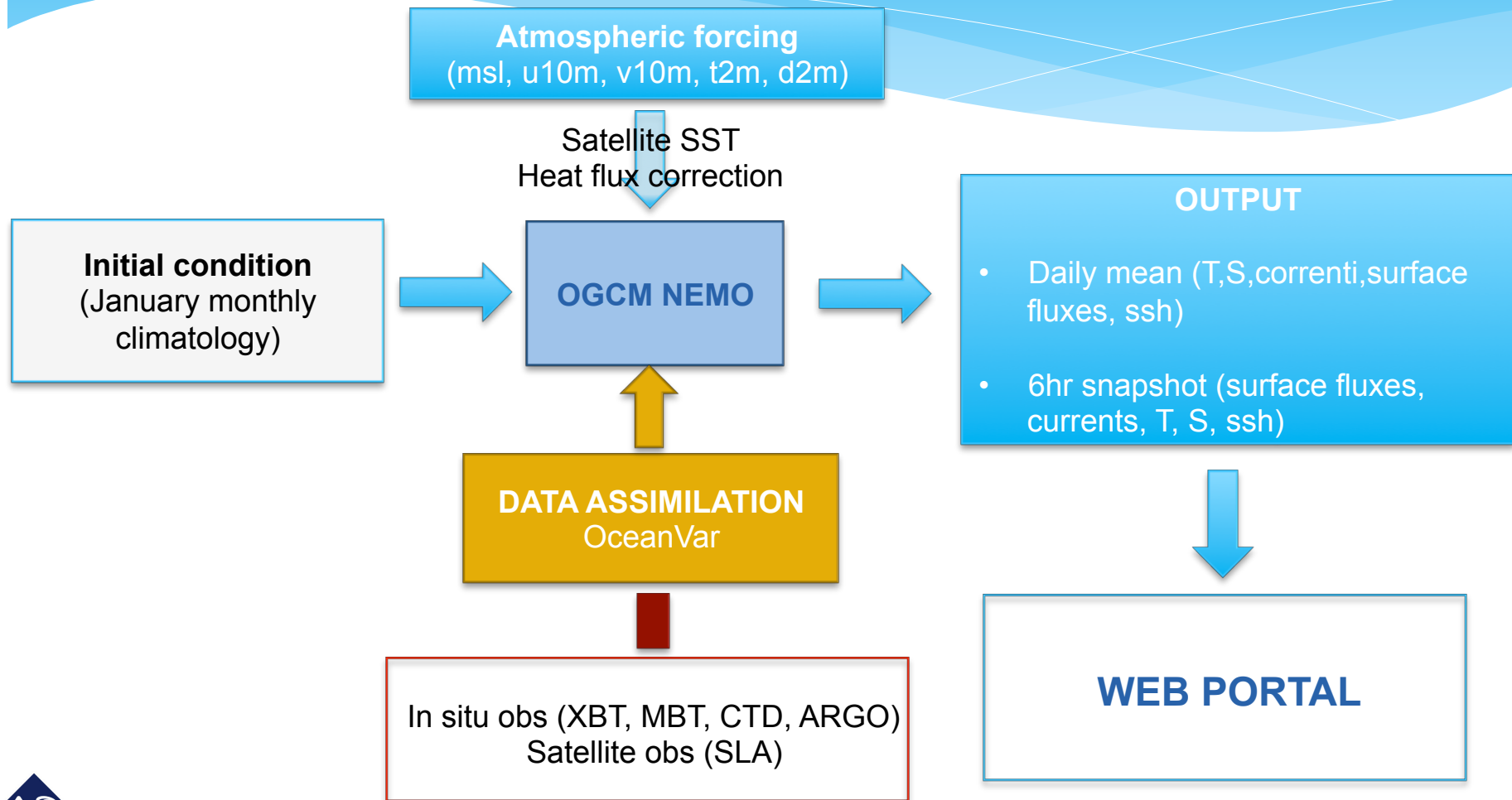
Outline

- 60 years of Mediterranean Reconstruction/Reanalysis (RR) production since 1953
- RR archive and web portal development for services

WP 1.3

Sistemi osservativi marini e ricostruzione climatica

Mediterranean RR System

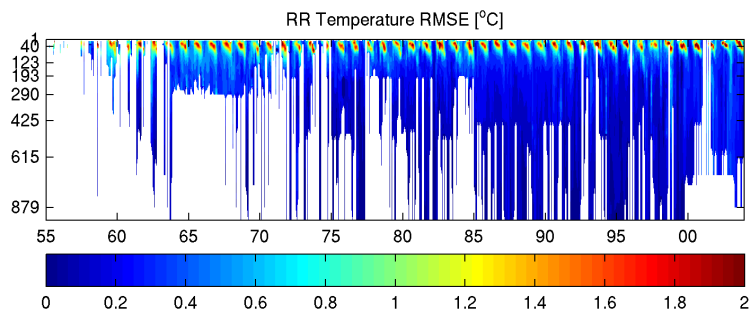
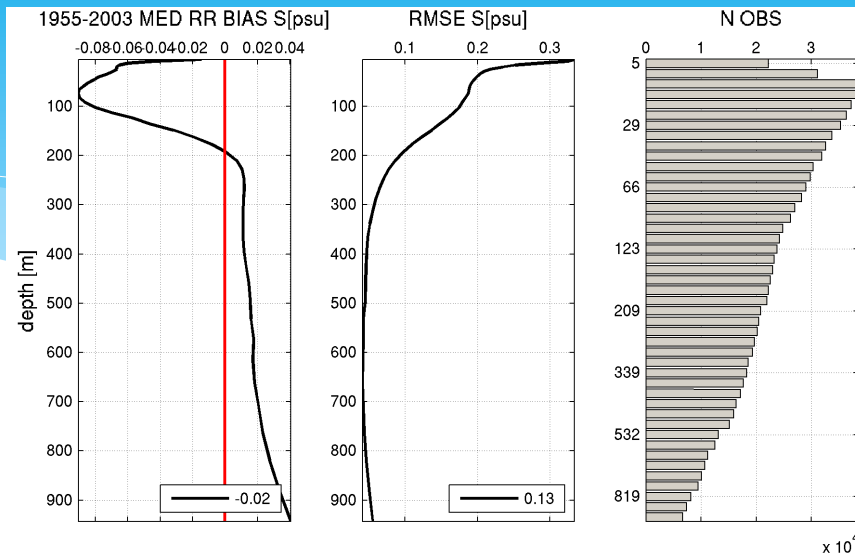
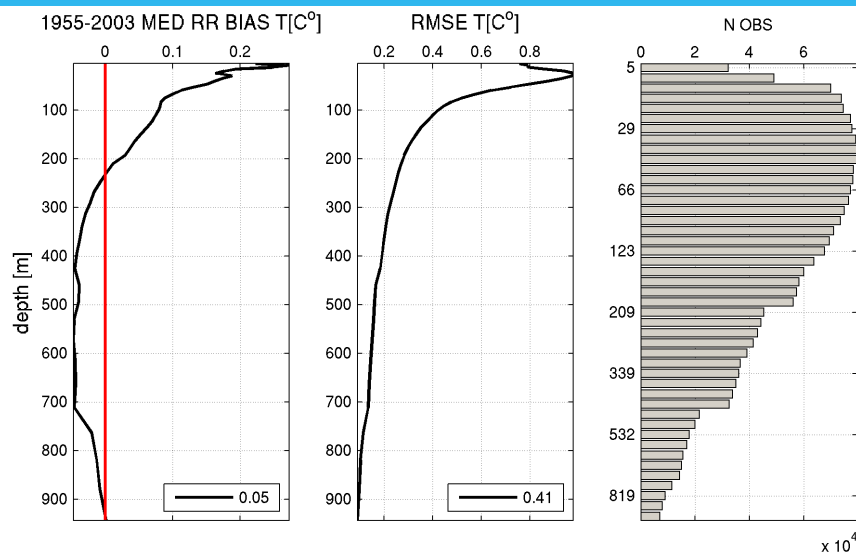


Assessment of RR quality

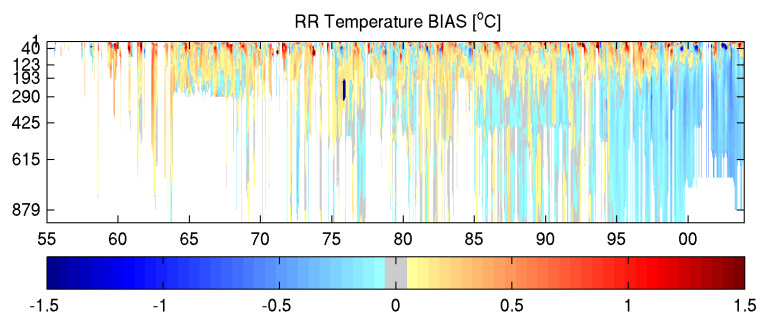
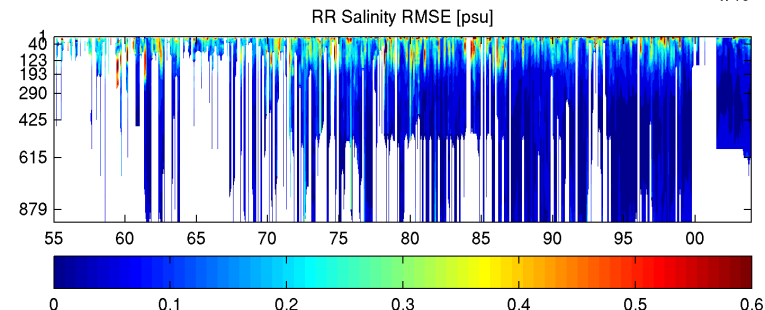
- Fit to observations : validation and verification
- Comparison with other estimates
- Comparison with previous Mediterranean Sea Reanalysis (MyOcean)

Fit to observations (validation: model – observations)

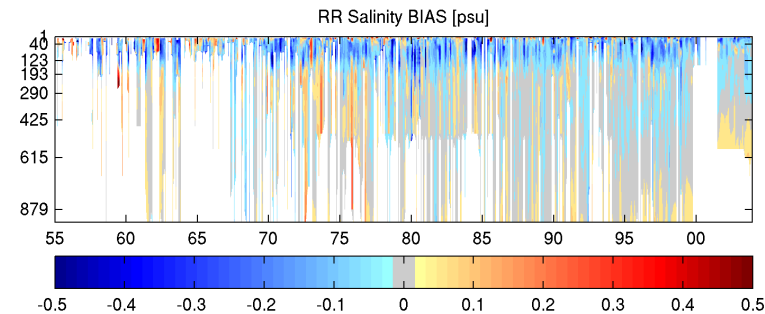
$$m = y_o - H(x)$$



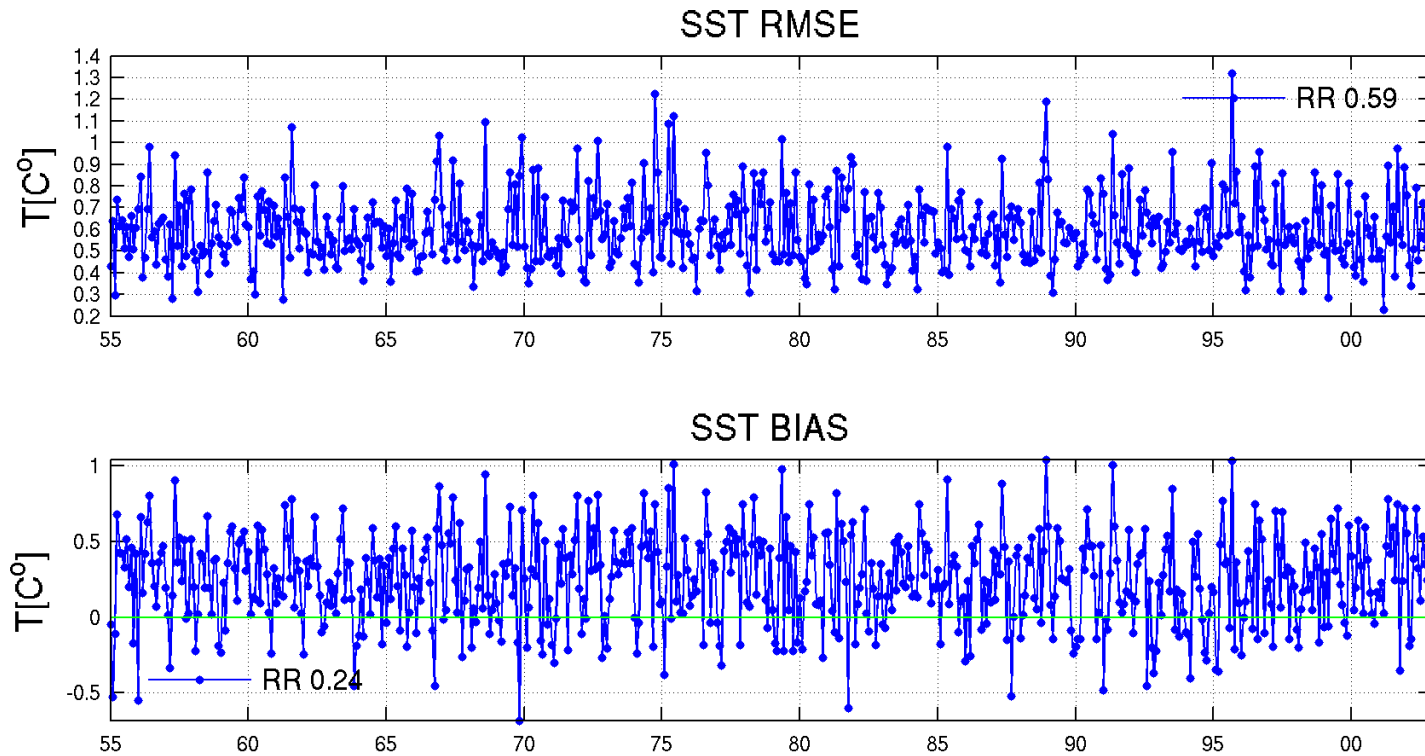
RMS



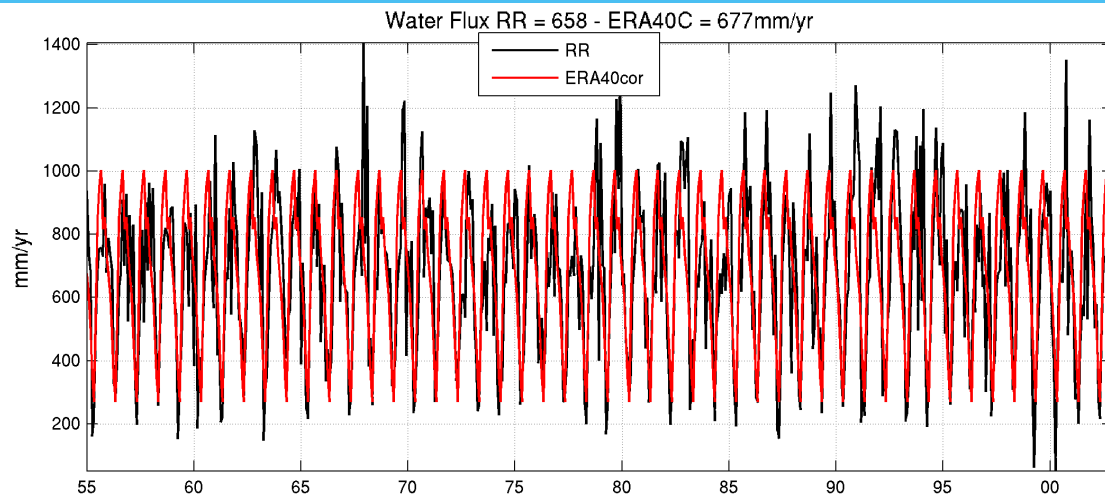
BIAS



Fit to observations (verification)

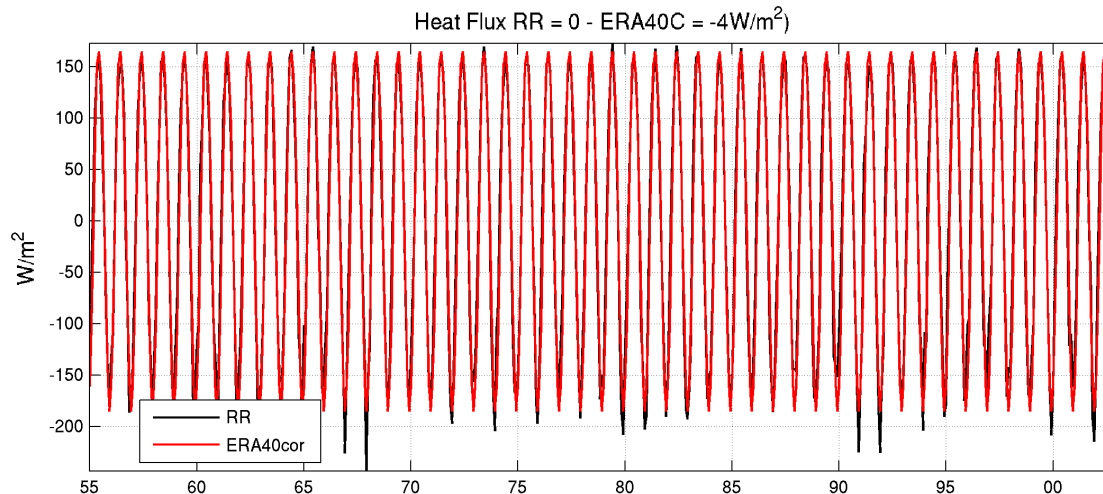


Comparison with other estimates



E - P [mm/yr]

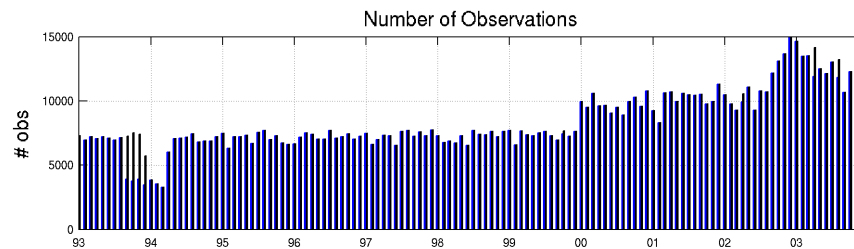
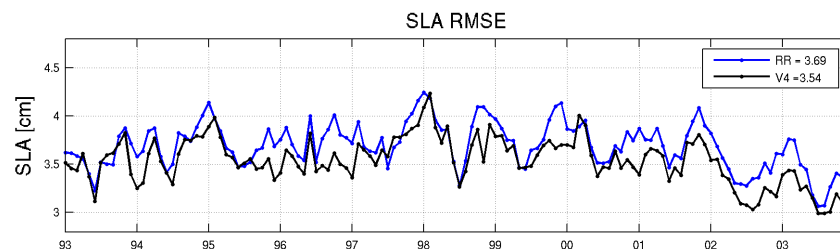
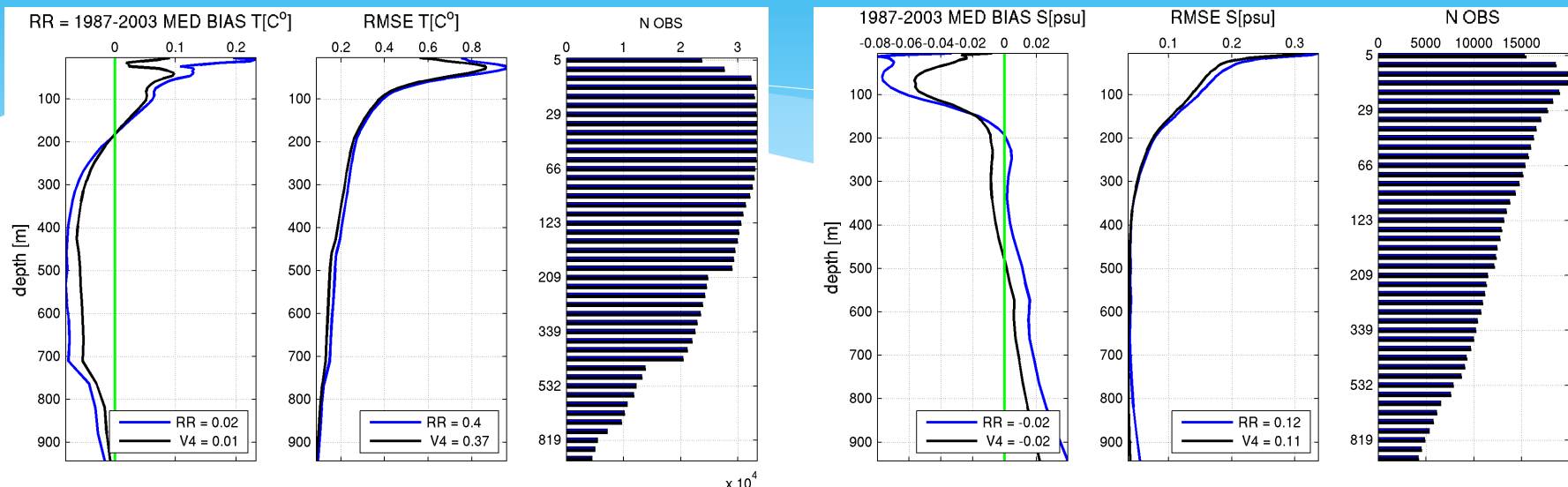
500 – 700 *Mariotti et al, 2002*
700 – 640 *Pettenuzzo, 2010*



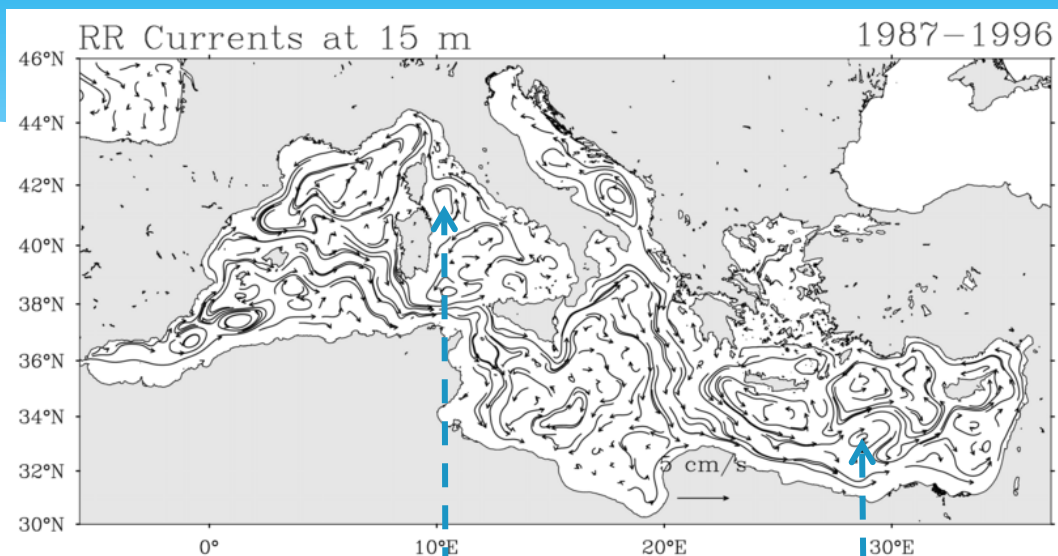
Net Heat flux [W/m²]

- 6 ± 3 *Pettenuzzo, 2010*

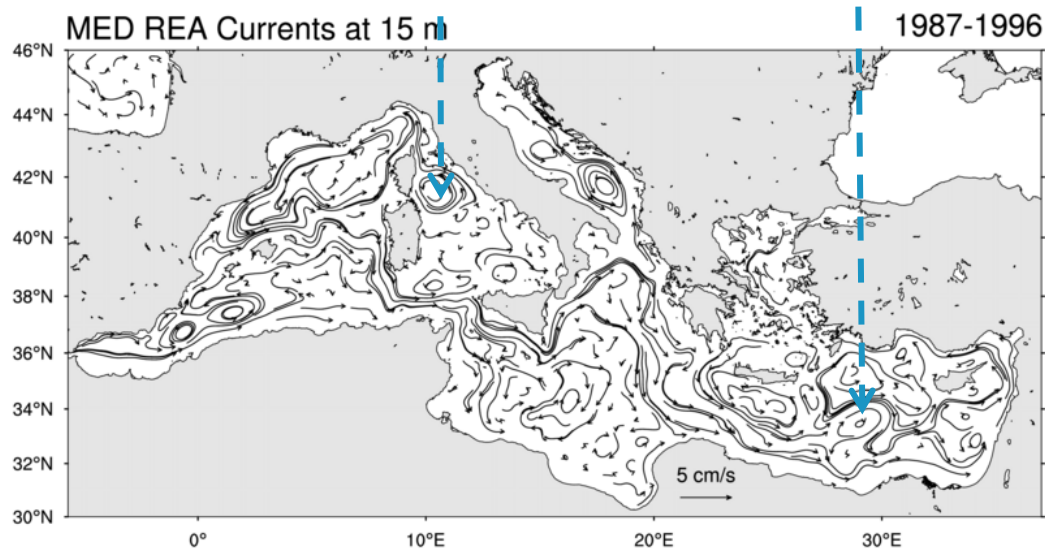
Comparison with previous Mediterranean Sea Reanalysis



Comparison with previous Mediterranean Sea Reanalysis



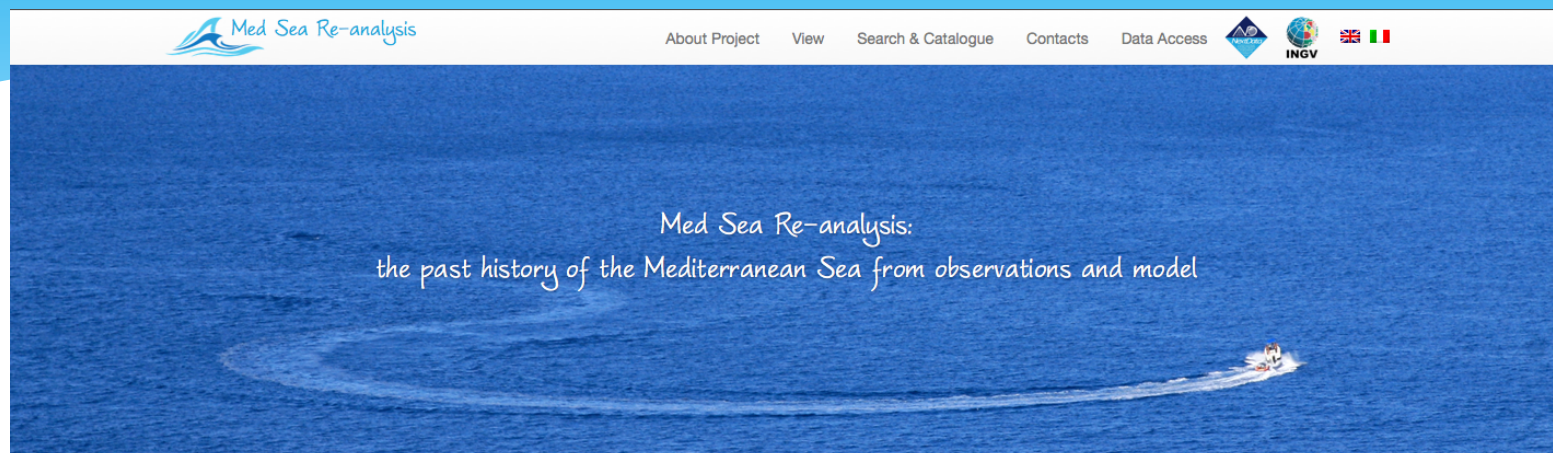
AMIP (1.125°)



ERA-Interim (0.75°)

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View

The view service gives a visual preview of the available dataset.

[View details »](#)



Search & Catalogue

The RR Data Catalogue Service allows you to find data held within the RR catalogue. The catalogue is populated with 'discovery' metadata (information about datasets) in order to make the discovery easier.

[View details »](#)



Data Access

The data are openly and freely accessible at this Link

[View details »](#)

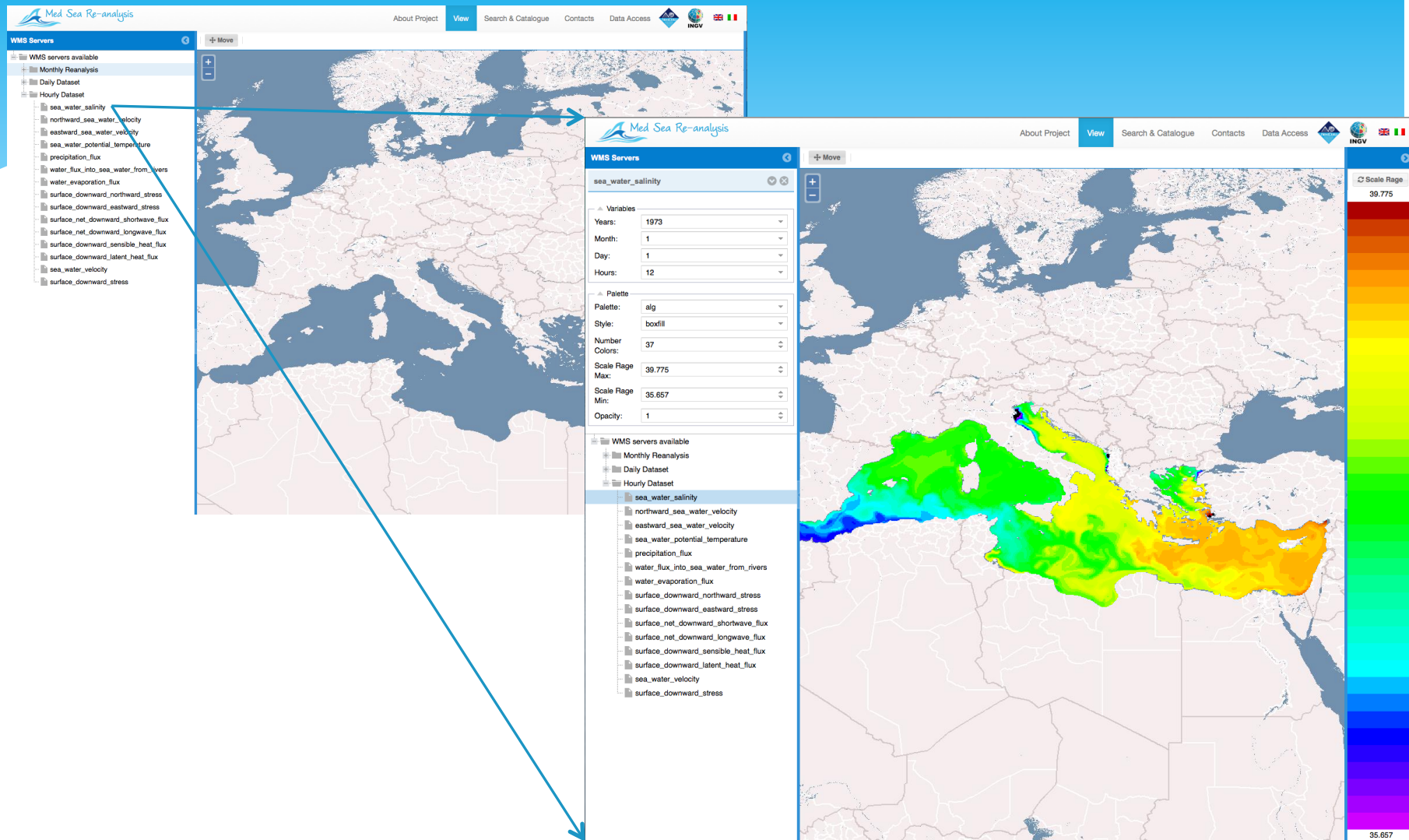
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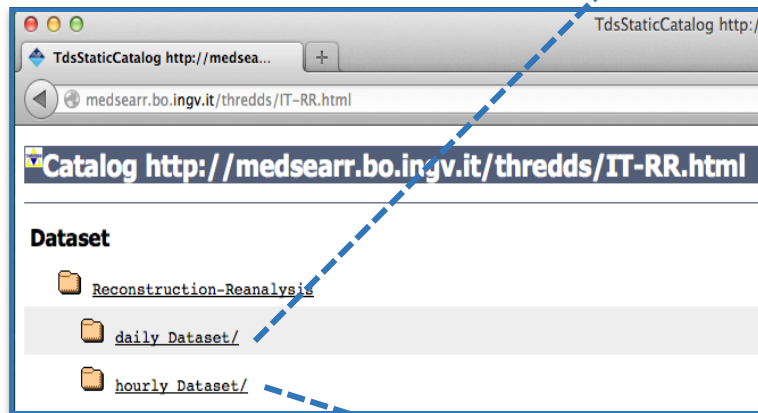
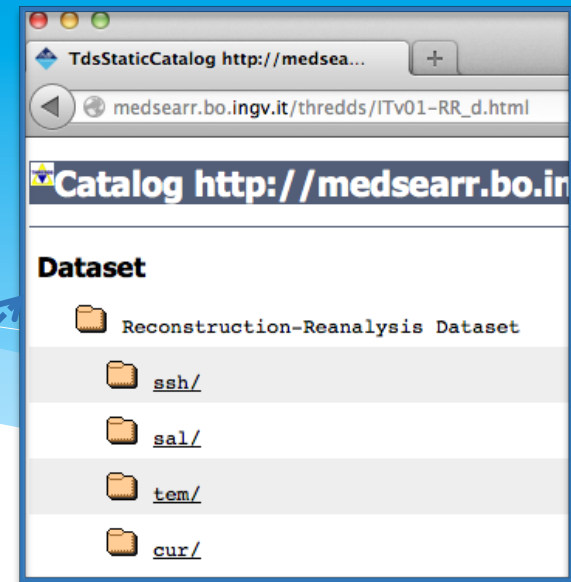
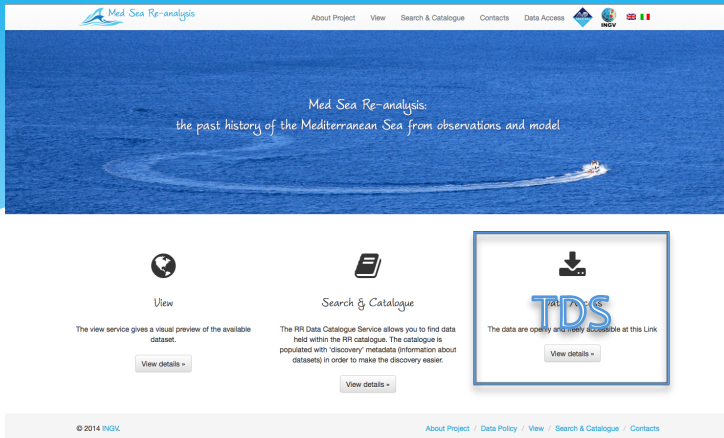
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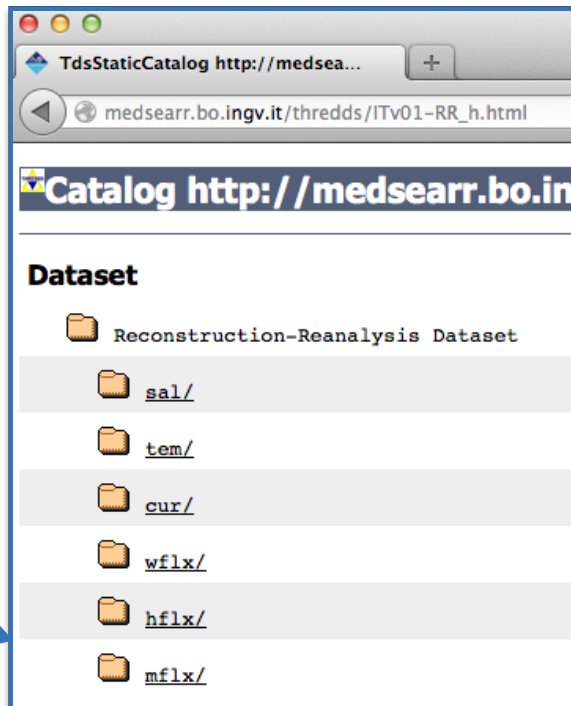
View



Data Access



RR dataset is delivered in netCDF format adopting international standards concerning standard name and CF convention (CF1.0).



Search & Catalogue

 Med Sea Re-analysis

About ProjectViewSearch & CatalogueContactsData Access

Search paramsCatalog Items

Search:

Variables:

▲ Date Range

Start:

End:

▲ Coordinates

Nord:

East:

South:

West:





Dissemination RR results

- **Geotalia 2014** : T5 – Climate change and the Earth System: understanding the past, analyzing the present and predicting future scenarios
- **COASTESonda 2014**, 5° Coastal Protection, Hydrogeological instability and Hazards Prevention, 18 September 2014
- **EuroGOOS conference** – 27 October Lisbon, Portugal (*Side event*)

Acknowledgements

- Pinardi, N., et al. ***Mediterranean Sea large-scale low-frequency ocean variability and water mass formation rates from 1987 to 2007: A retrospective analysis***. Prog. Oceanogr. (2013)
doi: <http://dx.doi.org/10.1016/j.pocean.2013.11.003>
- Cessi, Paola, Nadia Pinardi, Vladislav Lyubartsev, 2014. ***Energetics of Semiencloused Basins with Two-Layer Flows at the Strait***. J. Phys. Oceanogr., 44, 967–979
doi: <http://dx.doi.org/10.1175/JPO-D-13-0129.1>