

AdriaClim

STATO DI AVANZAMENTO DELLE ATTIVITÀ MODELLISTICHE

(State of progress of modeling activities)

AdriaClim | PP11 | Alex Pividori

Internal meeting | Palmanova | 30th September 2022

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- ❑ Description of analysis-flow for SHYFEM simulations and related outputs
- ❑ Web-Page description

Data Analysis

- Initialization file:
- Nodes' Name
 - Serial code analysed
 - Time Period analysed

- Initialization file:
- Statistical index
 - Physical quantity
 - Plot type

- Initialization file:
- Plot type

SHYFEM
simulations
database

Data Extraction

Data Analysis

Graph realization
&
CSV archivation

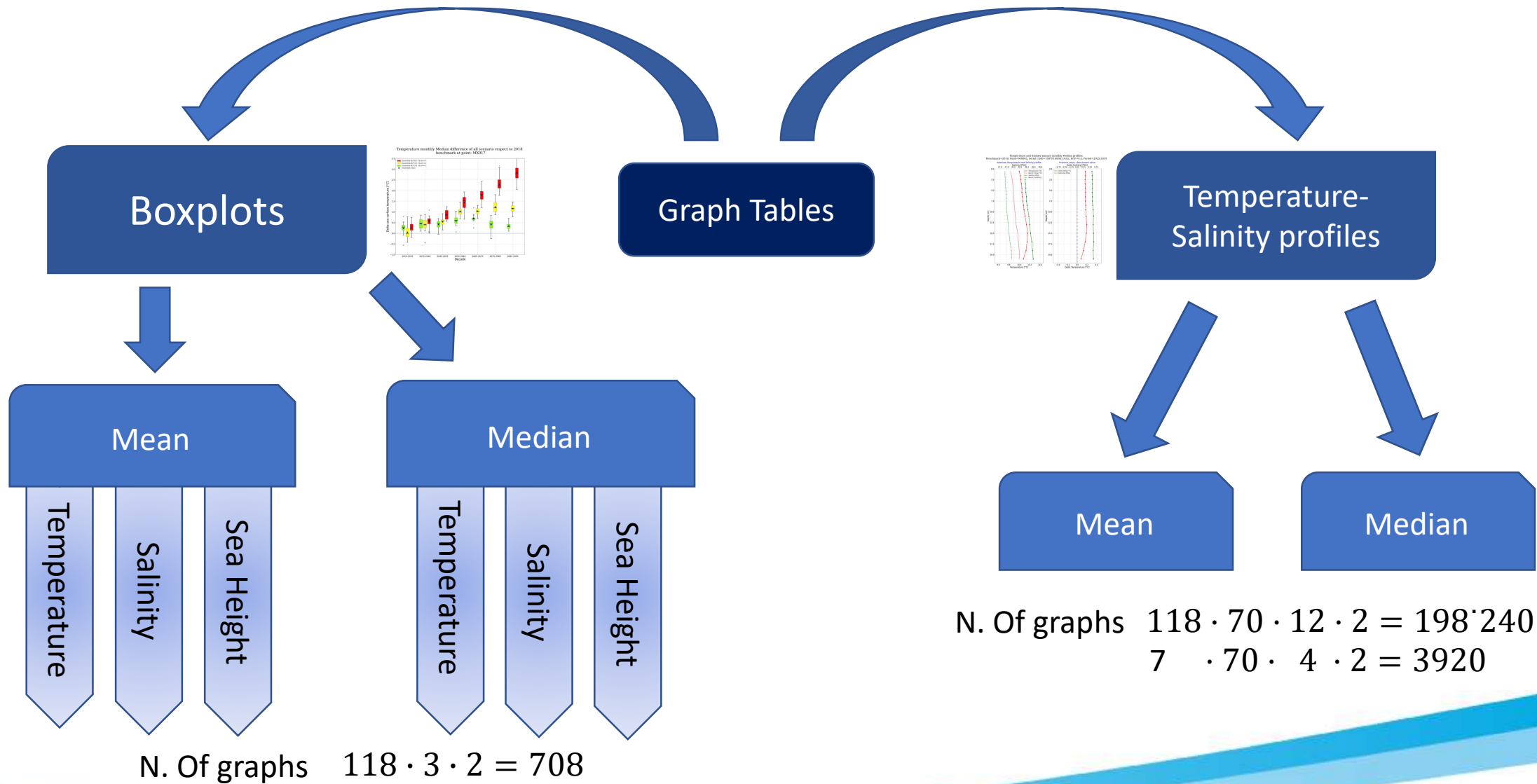
ecflow suite

[AdriaClim Web-Page](#)

CSV file archive



Benchmark Comparison plot types



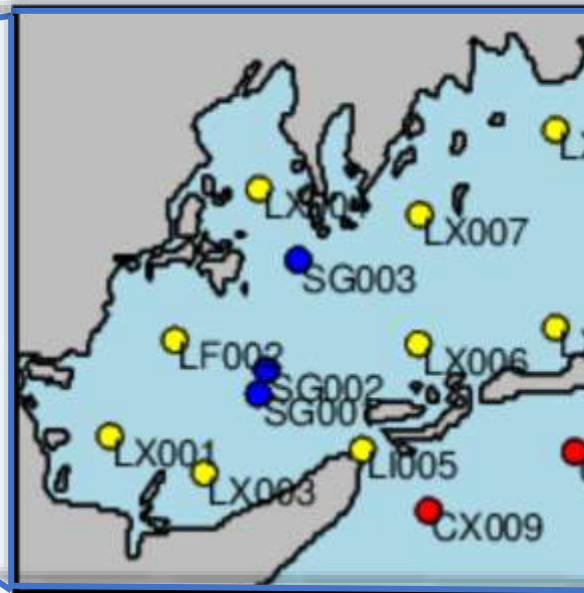
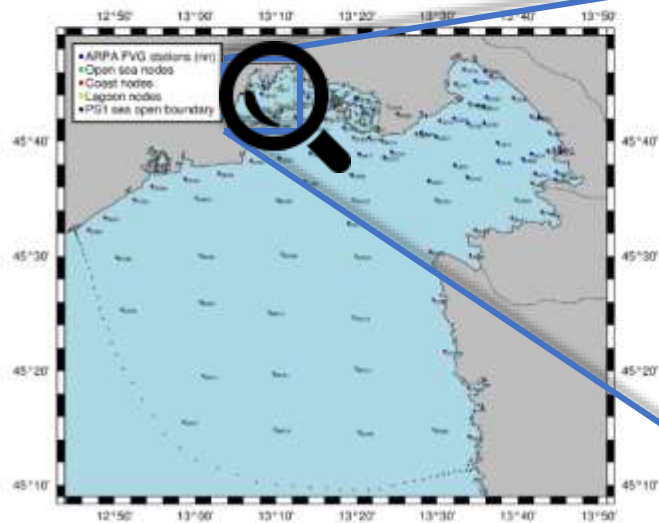
SHYFEM BENCHMARK comparison

For more informations about monitored points: Monitored points coordinates

● : RCP 2.6
 ● : RCP 4.5
 ● : RCP 8.5

118 analyzed nodes map:

AdriaClim's Modeling EXT Nodes - ARPA FVG (PP11) Pilot Site (PS1)



Graph Table



SHYFEM simulations comparison respect to 2018 BENCHMARK year

Graphic

Temperature, Salinity and Surface Height prjections

Graph Table description

Data used

Graph Type

Ensemble Model projections
(Mean Differences)



Graph Thumbnail

SHYFEM simulations comparison respect to 2018 BENCHMARK year

Temperature, Salinity and Surface Height projections

Search Point...

Search Bar by node name

Temperature:

CB001 CB002 CB004 CB005 CB006 CB008 CB010 CB013 CB014 CB015 CB022 CB025 CB027 CB028 CB029 CB031 CB034 CF003 CF007 CF016
CF017 CN021 CP018 CP019 CP024 CP026 CP033 CX009 CX011 CX012 CX020 CX023 CX030 CX032 LF002 LF010 LI005 LI011 LI017 LX001 LX003 LX004 LX006
LX007 LX008 LX009 LX012 LX013 LX014 LX015 LX016 LX018 MX001 MX002 MX003 MX004 MX005 MX006 MX007 MX008 MX009 MX010 MX011 MX012 MX013 MX014
MX015 MX016 MX017 MX018 MX019 MX020 SB004 SB023 SG001 SG002 SG003 SG007 SG008 SG016 SG018 SG022 SG028 SN041 SP030 SP034 SP043 SP044 SX005
SX006 SX009 SX010 SX011 SX012 SX013 SX014 SX015 SX017 SX019 SX020 SX021 SX024 SX025 SX026 SX027 SX029 SX031 SX032 SX033 SX035 SX036 SX037
SX038 SX039 SX040 SX042 SX045 SX046

Salinity:

CB001 CB002 CB004 CB005 CB006 CB008 CB010 CB013 CB014 CB015 CB022 CB025 CB027 CB028 CB029 CB031 CB034 CF003 CF007 CF016
CF017 CN021 CP018 CP019 CP024 CP026 CP033 CX009 CX011 CX012 CX020 CX023 CX030 CX032 LF002 LF010 LI005 LI011 LI017 LX001 LX003 LX004 LX006
LX007 LX008 LX009 LX012 LX013 LX014 LX015 LX016 LX018 MX001 MX002 MX003 MX004 MX005 MX006 MX007 MX008 MX009 MX010 MX011 MX012 MX013 MX014
MX015 MX016 MX017 MX018 MX019 MX020 SB004 SB023 SG001 SG002 SG003 SG007 SG008 SG016 SG018 SG022 SG028 SN041 SP030 SP034 SP043 SP044 SX005
SX006 SX009 SX010 SX011 SX012 SX013 SX014 SX015 SX017 SX019 SX020 SX021 SX024 SX025 SX026 SX027 SX029 SX031 SX032 SX033 SX035 SX036 SX037
SX038 SX039 SX040 SX042 SX045 SX046

Nodes' Name

Surface height:

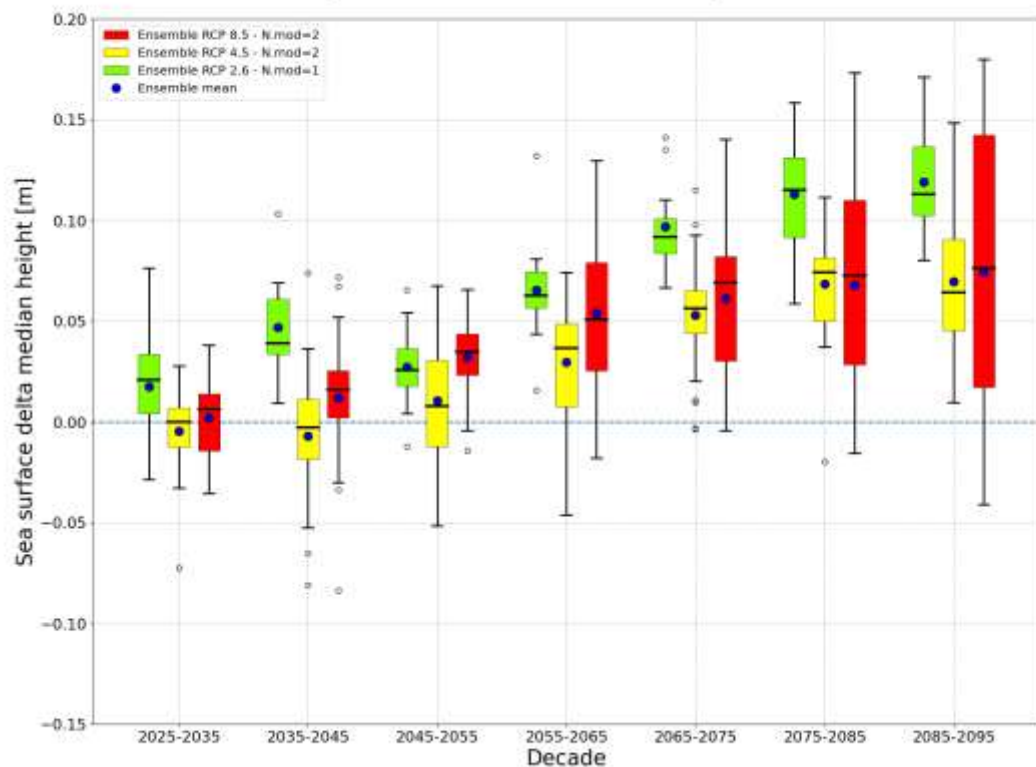
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CF017 CN021 CP018 CP019 CP024 CP026 CP033 CX009 CX011 CX012 CX020 CX023 CX030 CX032 LF002 LF010 LI005 LI011 LI017 LX001 LX003 LX004 LX006
LX007 LX008 LX009 LX012 LX013 LX014 LX015 LX016 LX018 MX001 MX002 MX003 MX004 MX005 MX006 MX007 MX008 MX009 MX010 MX011 MX012 MX013 MX014
MX015 MX016 MX017 MX018 MX019 MX020 SB004 SB023 SG001 SG002 SG003 SG007 SG008 SG016 SG018 SG022 SG028 SN041 SP030 SP034 SP043 SP044 SX005
SX006 SX009 SX010 SX011 SX012 SX013 SX014 SX015 SX017 SX019 SX020 SX021 SX024 SX025 SX026 SX027 SX029 SX031 SX032 SX033 SX035 SX036 SX037
SX038 SX039 SX040 SX042 SX045 SX046

Physical quantities

Boxplots Delta Monthly Median Temperature, Salinity and Sea level height

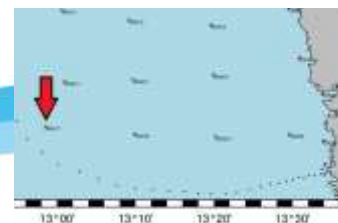
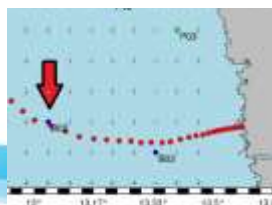
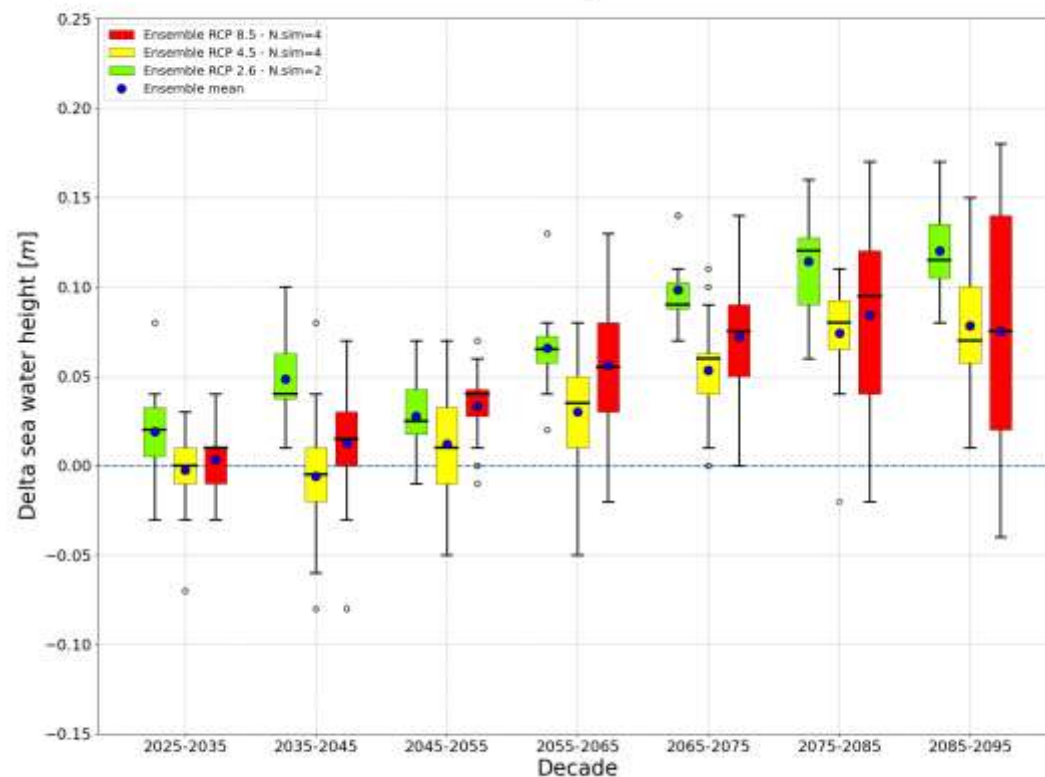
Med-CORDEX data

Delta monthly medians sea surface height scenario
respect to 2010-2020 decade at point: B02



SHYFEM simulation

Sea level monthly Median difference of all scenario respect to 2018
benchmark at point: MX017



Temperature-Salinity profiles

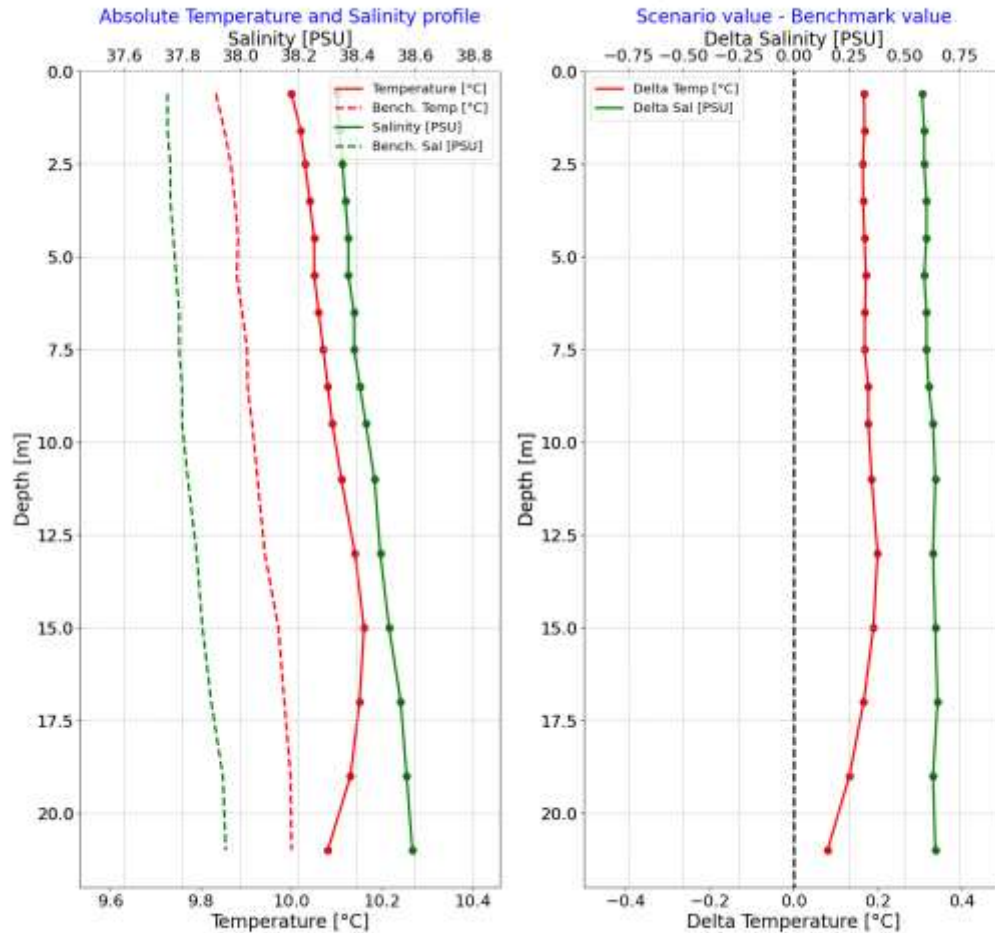
Nodes available: MX015 SX014 LX007 SG018 SX026 MX005 CX032

Months available: Jan, Apr, Jul, Oct



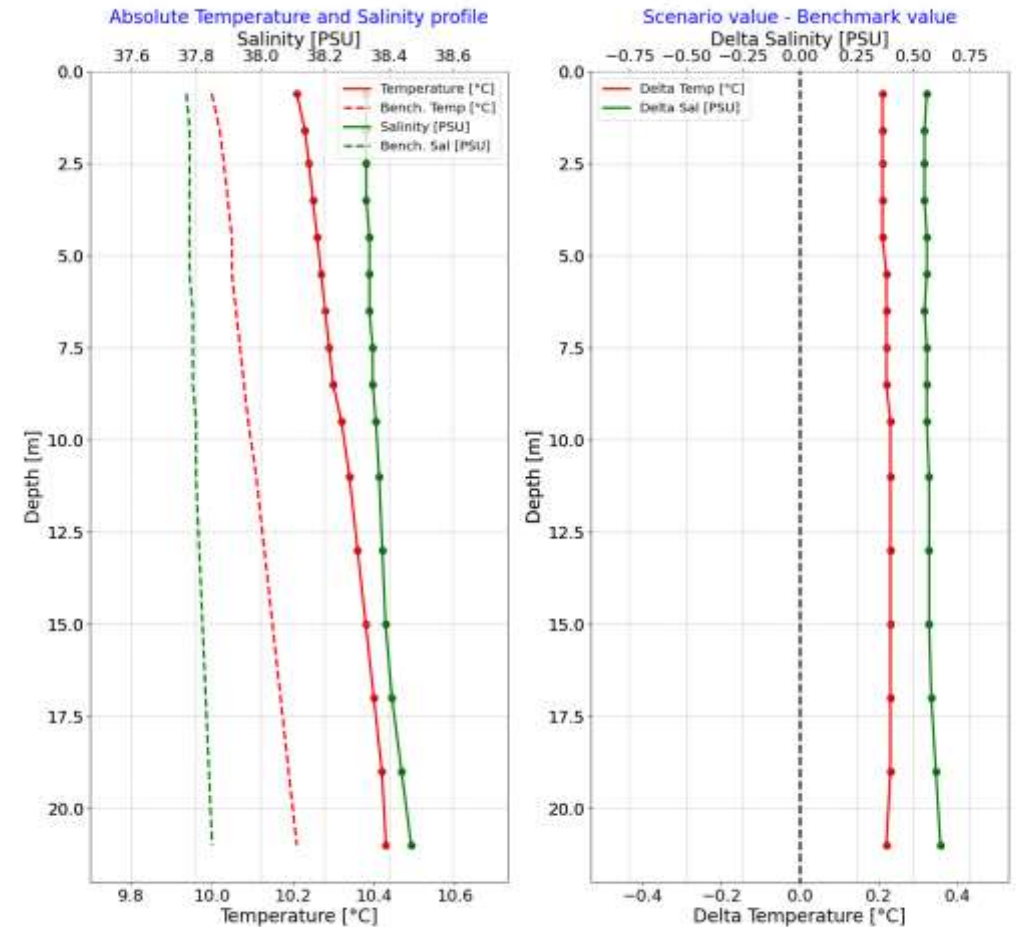
Temperature and Salinity January monthly Median profiles:

Benchmark=2018, Point=MX005, Serial Code=1997F100D0_D102, RCP=4.5, Period=2025-2035



Temperature and Salinity January monthly Mean profiles:

Benchmark=2018, Point=MX005, Serial Code=1997F100D0_D102, RCP=4.5, Period=2025-2035



Foreseen next activities and further developments:

- SHYFEM simulations by CMCC's boundary conditions RCP 8.5 (2006-2050)
- Further sensitivity tests using scientific literature data (IPCC)

CONTACT INFORMATION

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