REMO SST GROUP: Status & Updates

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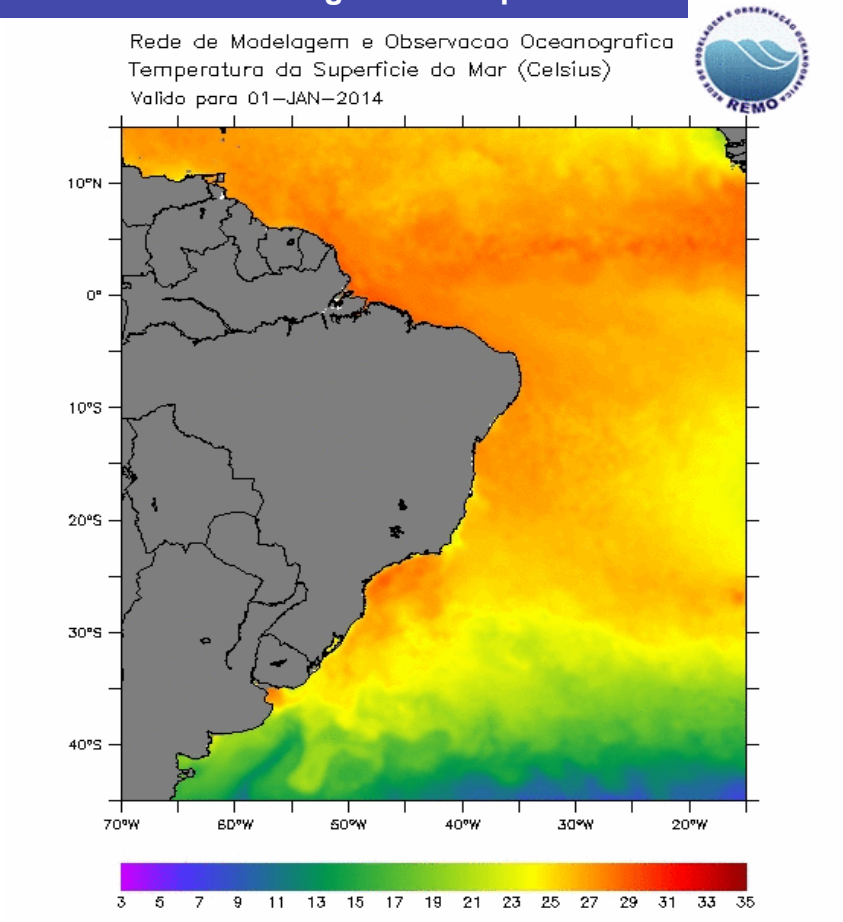
REMO Goals:

- To develop and maintain an operational ocean circulation forecast system for the Brazilian continental shelf and slope regions; and
- To help environmental authorities in case of oil disasters.

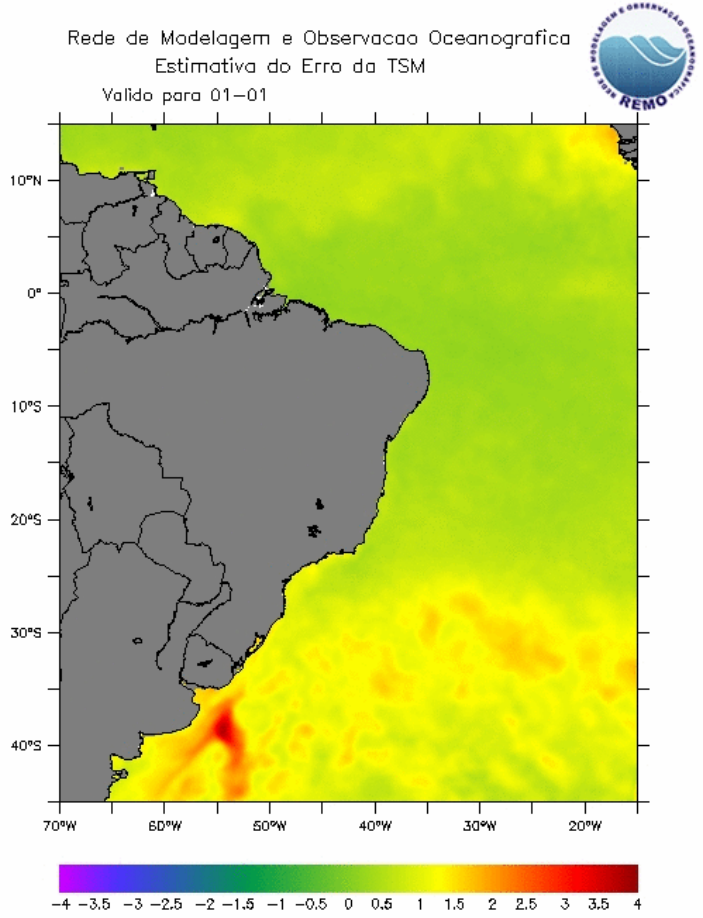
Members:

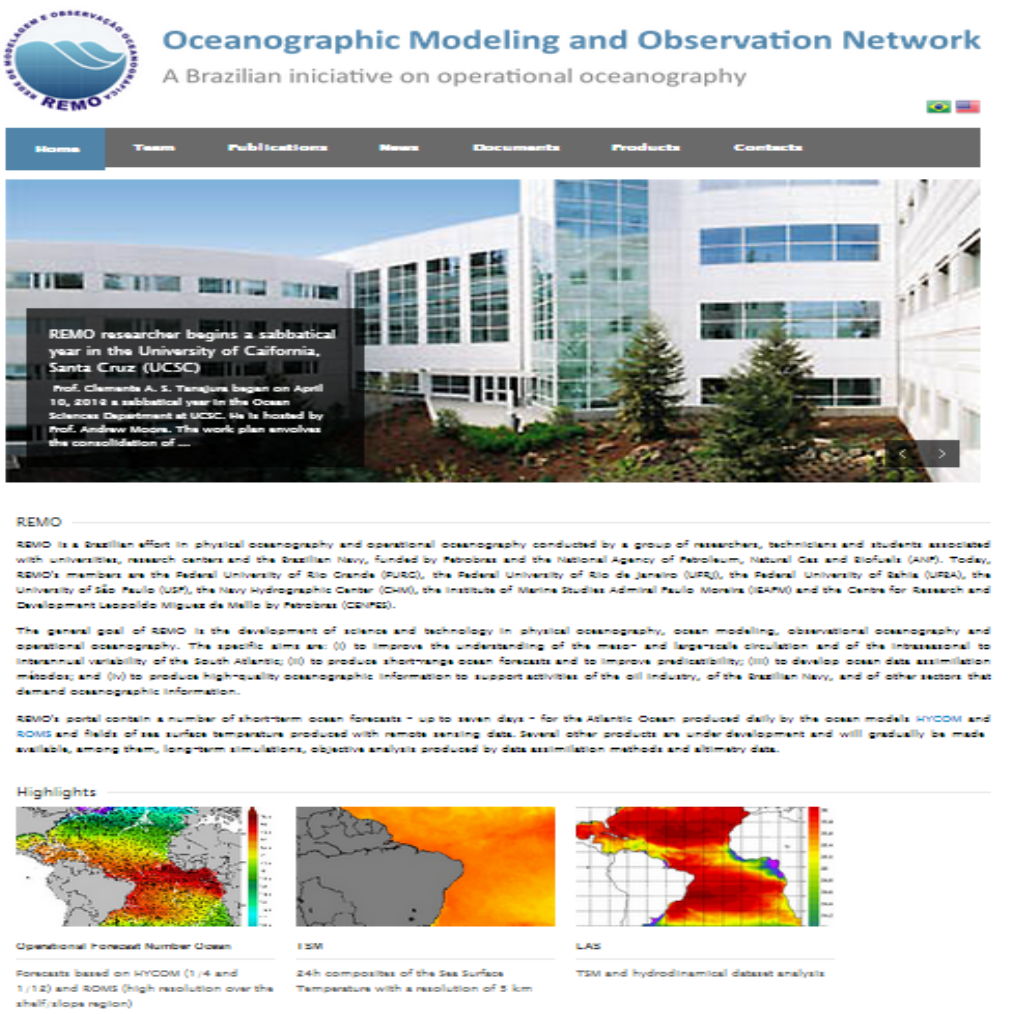
- PETROBRAS - Research Center
- Brazilian Navy – CHM/IEAPM
- Federal University of Rio de Janeiro
- University of São Paulo
- Federal University of Rio Grande
- Federal University of Bahia

- Daily SSt analysis (NOAA18-19 & TRMM)
- Resolution: 0,05º
- Time series: 1st August 2002 up now



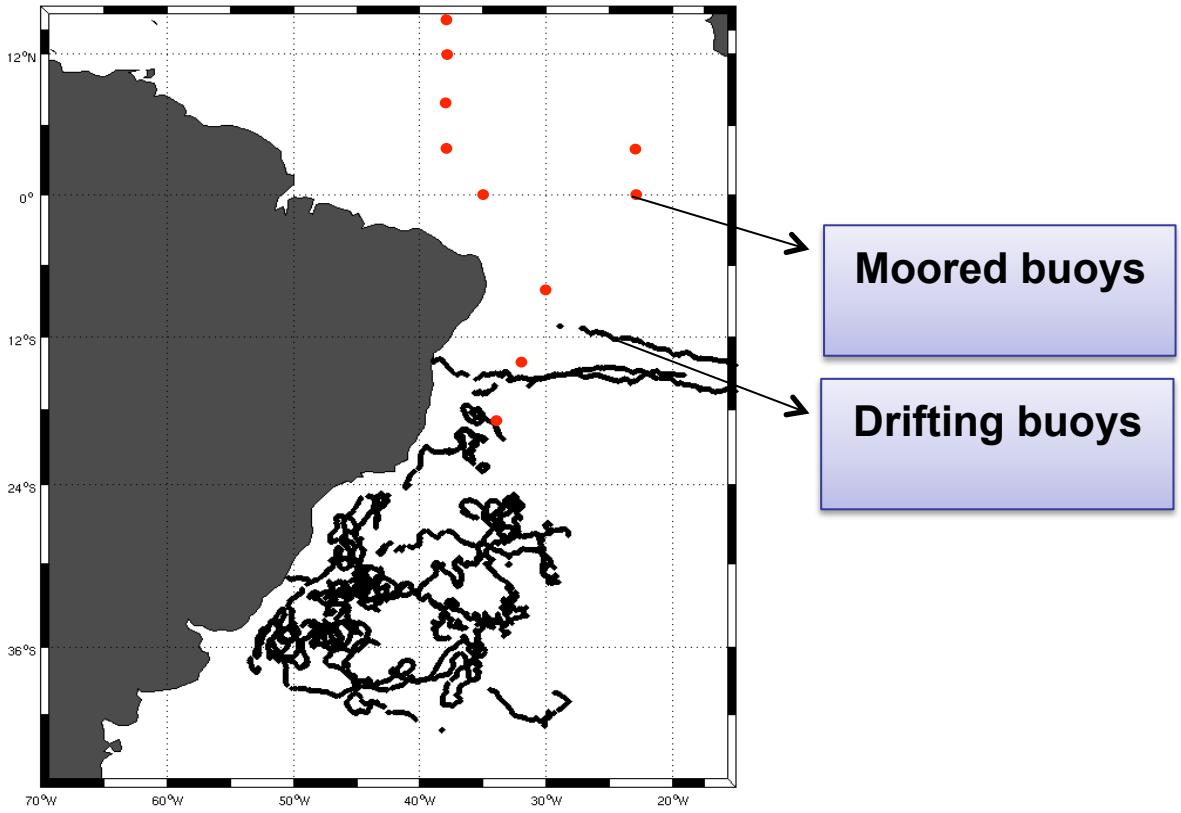
- SST Uncertainty



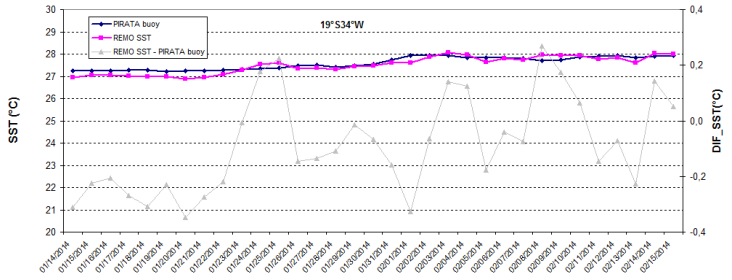


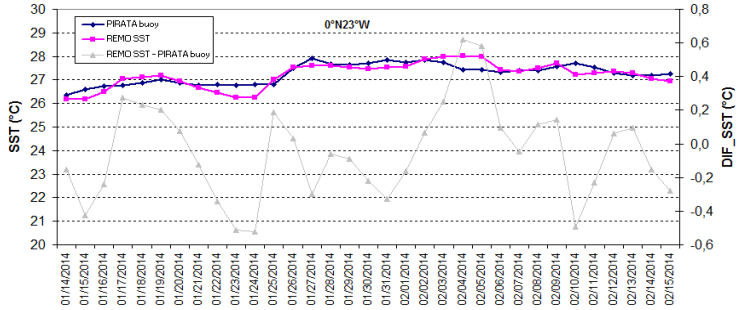
- REMO SST data in available at www.rederemo.org/html/

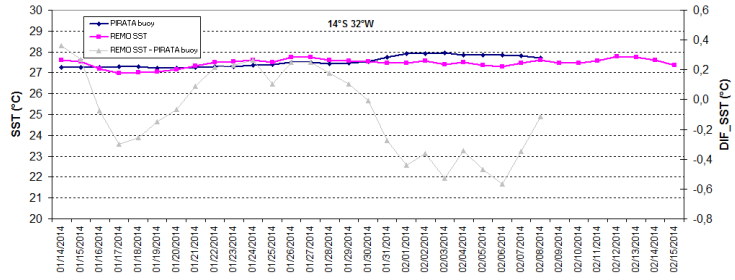
Validation has been continuoly carried out with moored and drifting bouys and also against GHRSST products

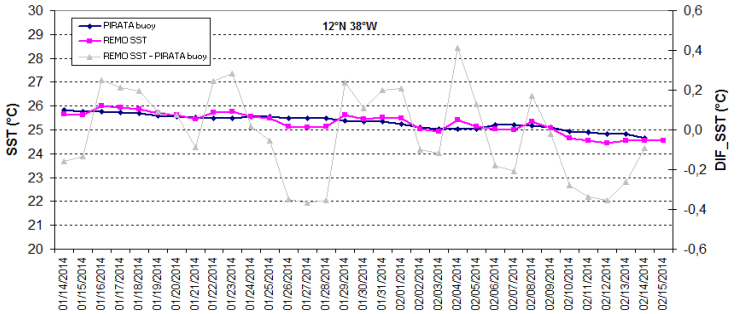


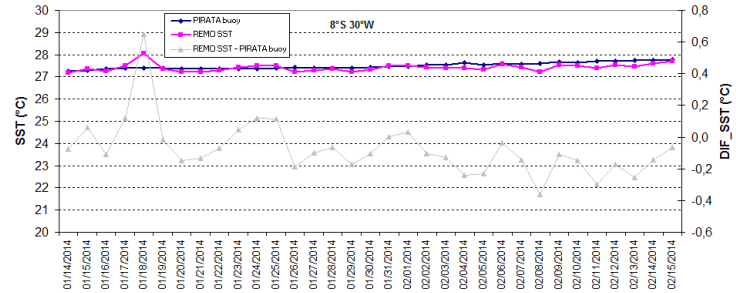
Validation with some PIRATA buoys

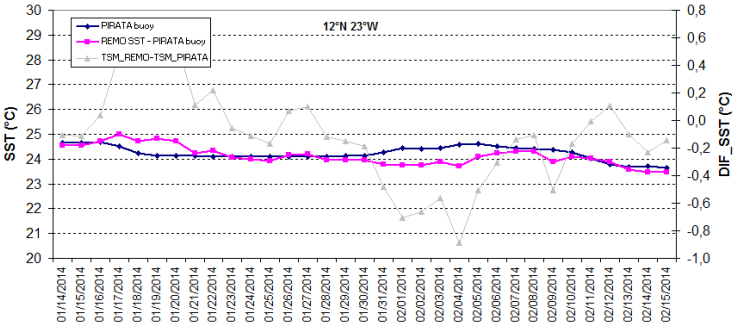










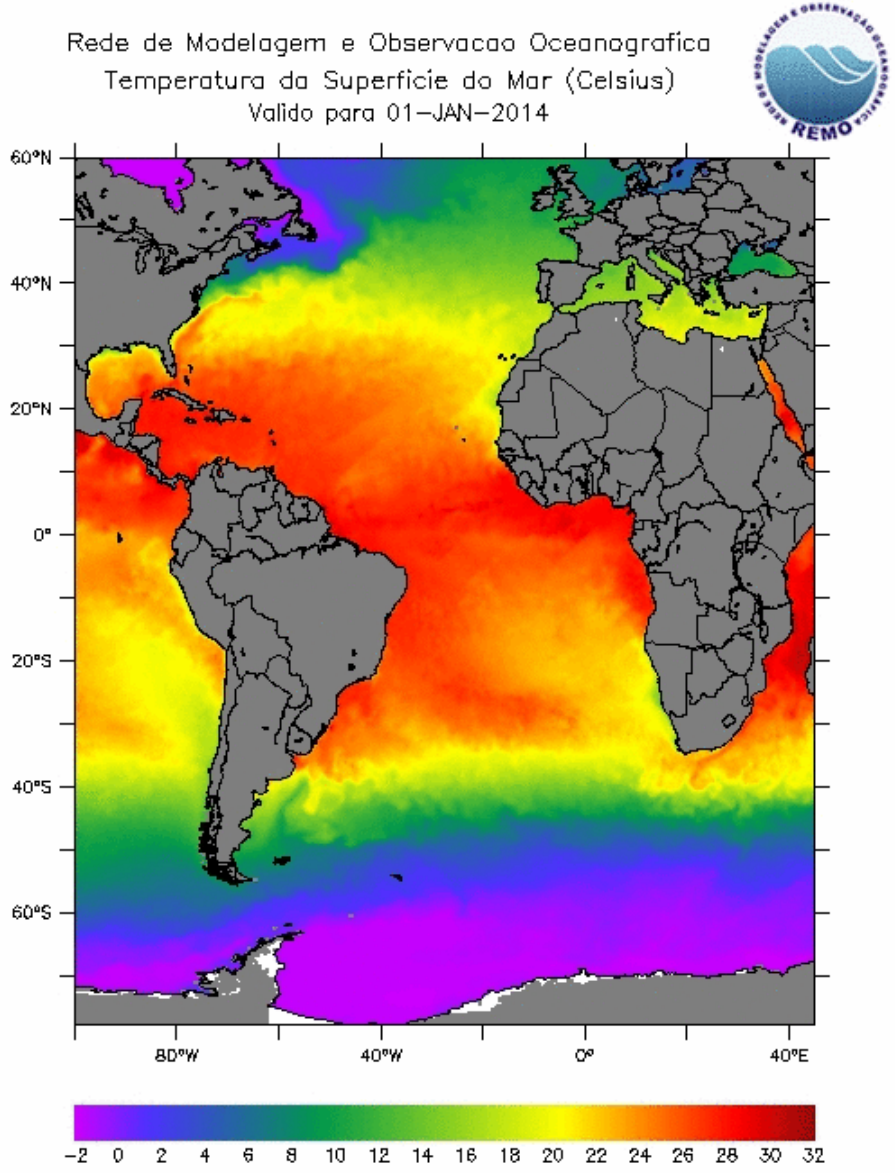


Extended area

Resolution: 0.05º

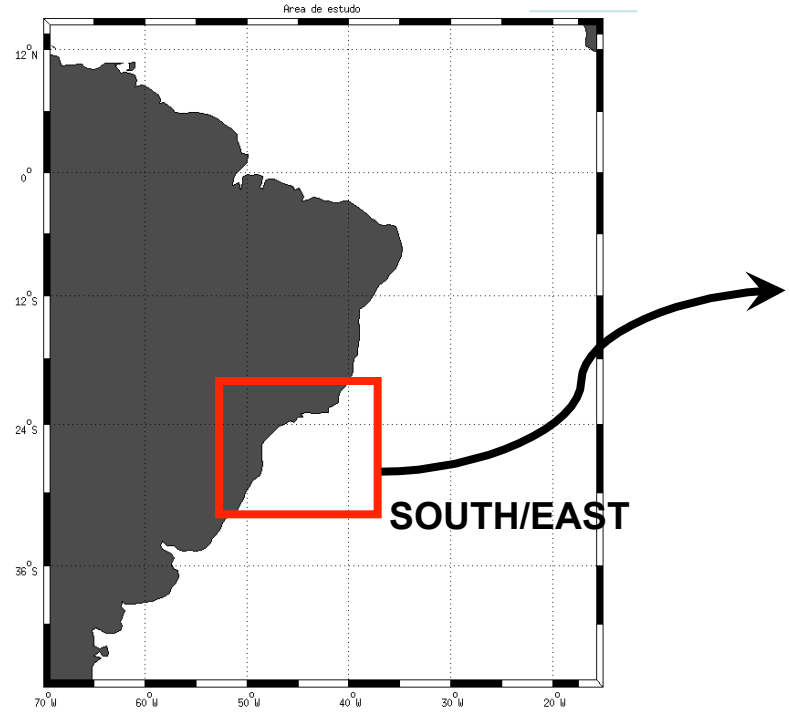
Data: NOAA18-19 & TRMM

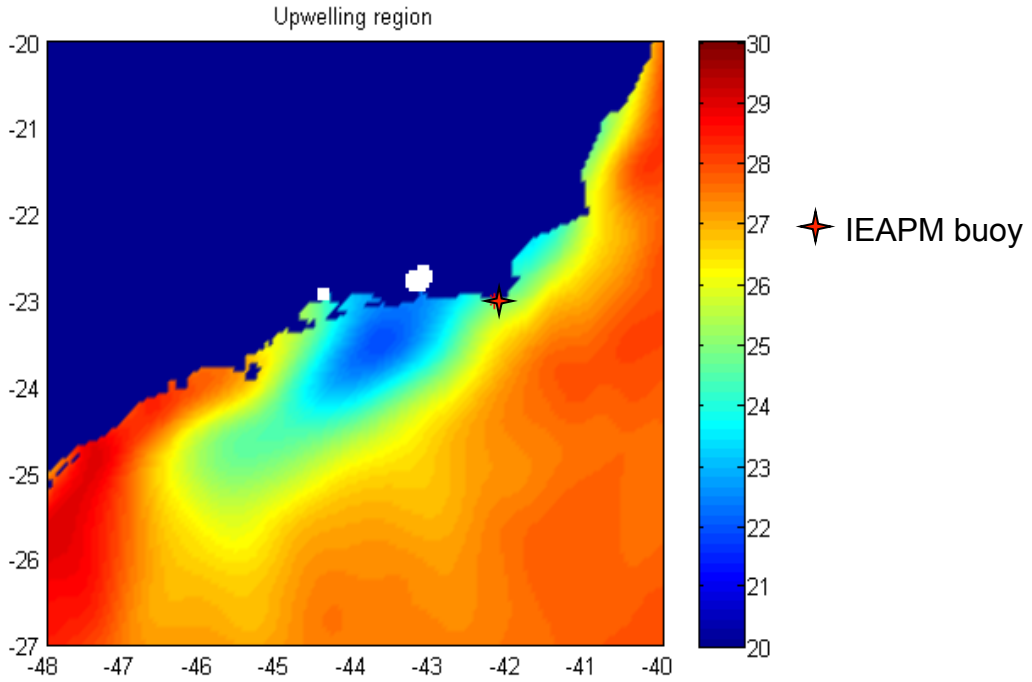
Time series: in development



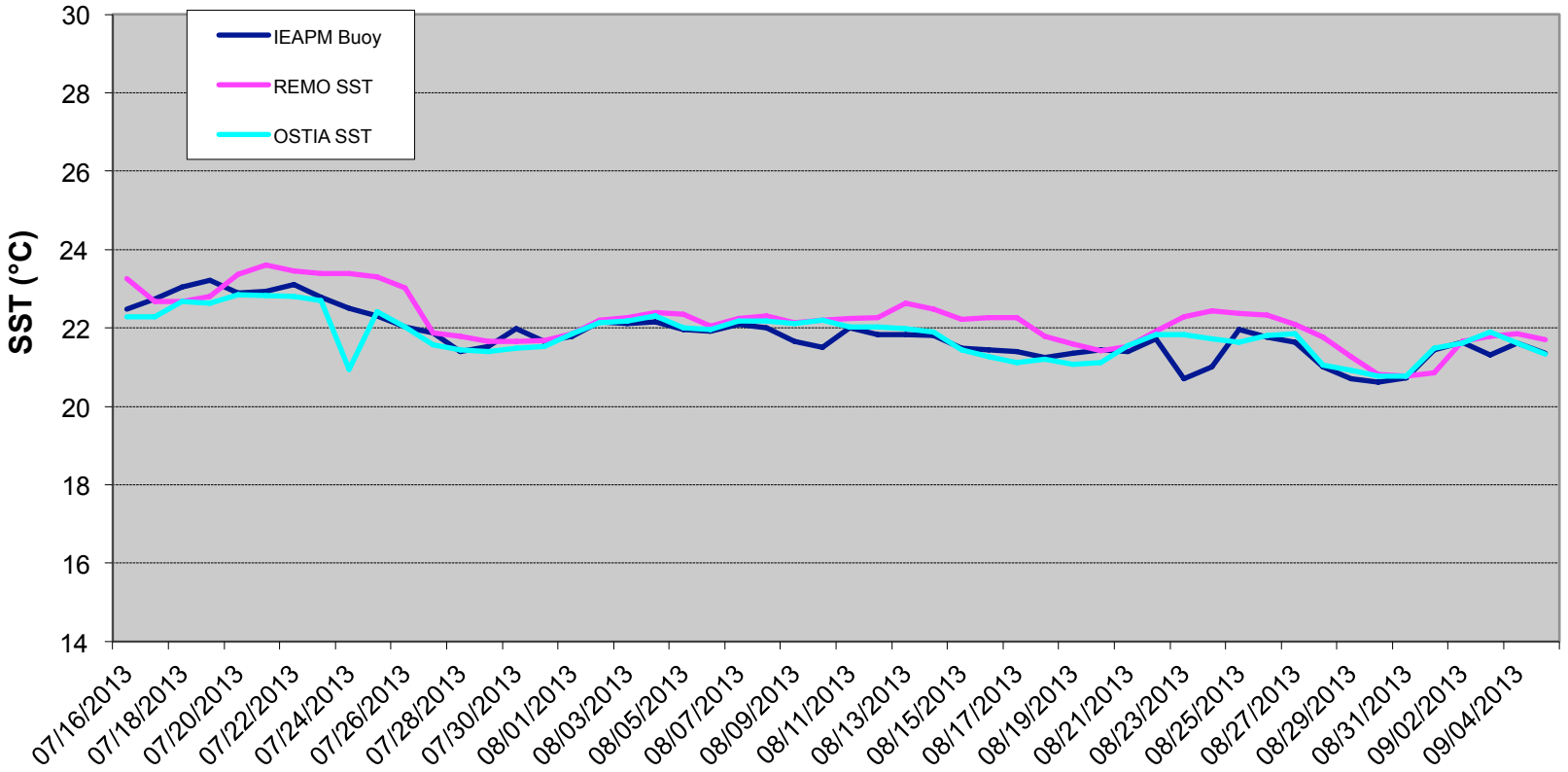
Present Challenge:

To develop a better SST analysis during upwelling event in Campus and Santos basins



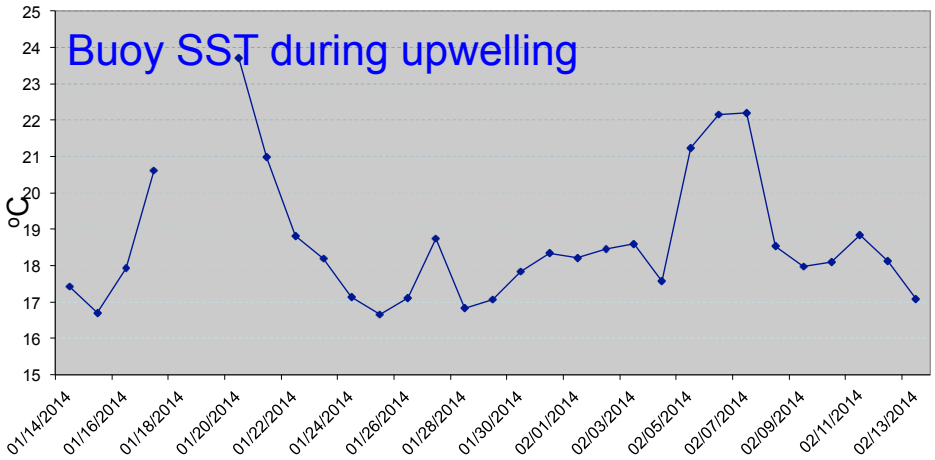


Comparison between buoy and SST products for no upwelling period

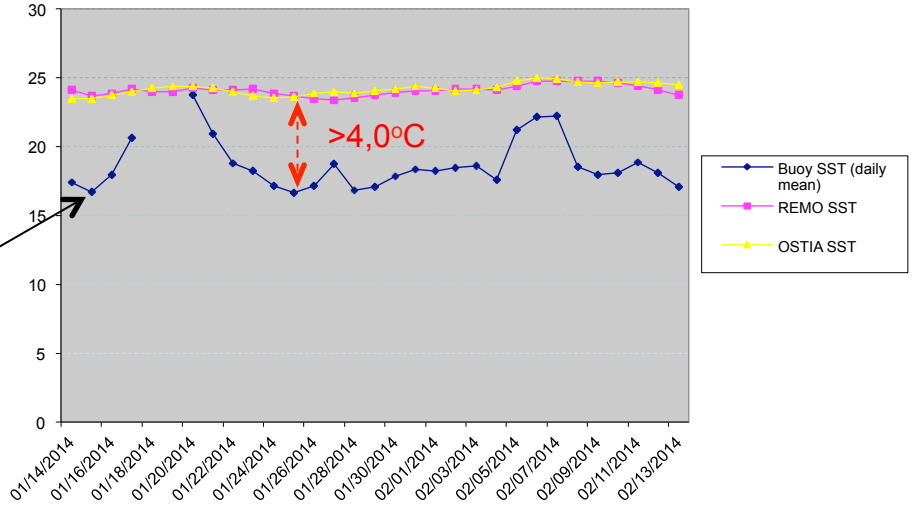


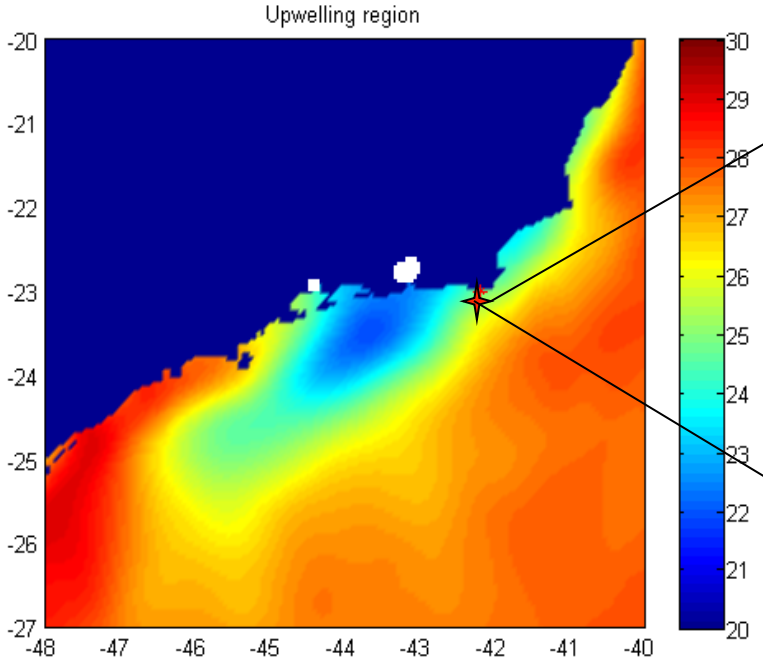
STUDY CASE

- Period: 14 Jan to 14 Feb 2014.
- Strong upwelling event recorded by buoy SST
- Local atmosphere with subsidence

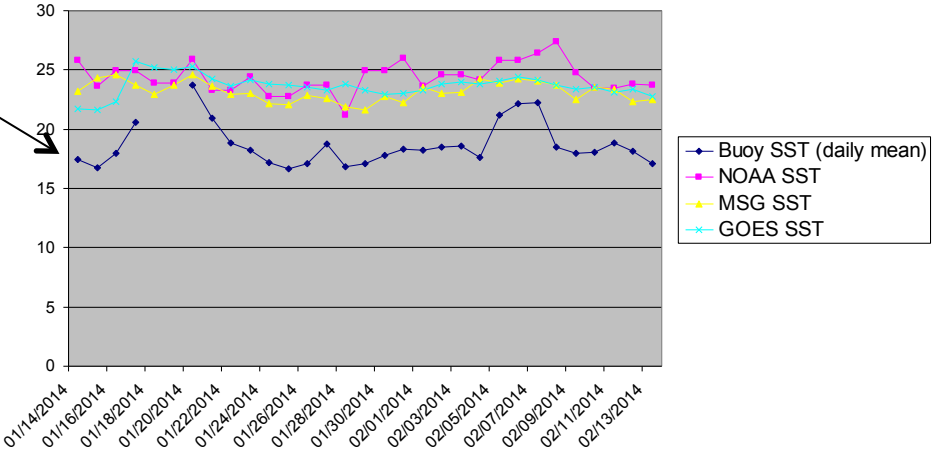


Comparison between SST analysis and in situ SST (buoy)



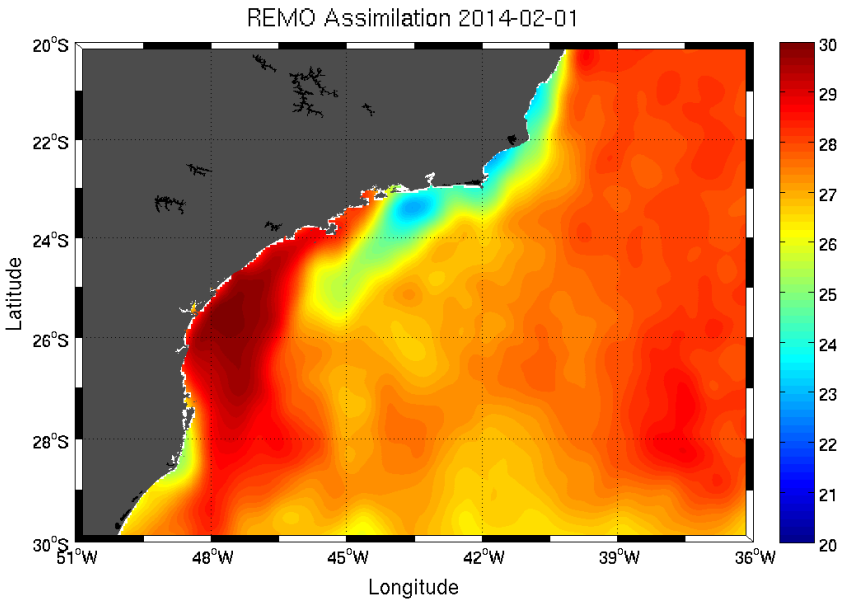


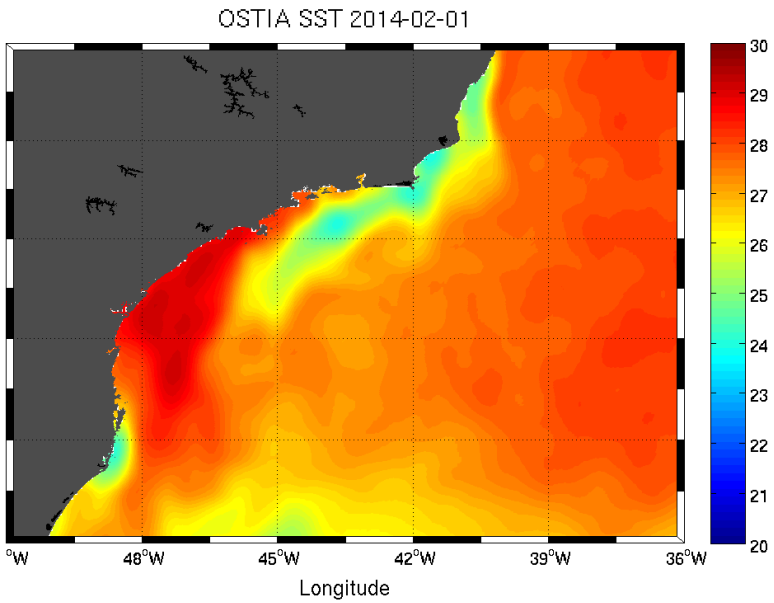
Comparison between SST estimation and in situ SST (buoy)



MSG: ftp://eftp.ifremer.fr/cersat-rt/project/osi-saf/data/sst/l3c/seviri
GOES: ftp://eftp.ifremer.fr/cersat-rt/project/osi-saf/data/sst/l3c/goes13
NOAA-18: ftp://podaac-ftp.jpl.nasa.gov/allData/avhrr/L2/navo_mcsst_9km_gac/noaa18/
NOAA-19: ftp://podaac-ftp.jpl.nasa.gov/allData/avhrr/L2/navo_mcsst_9km_gac/noaa19/

Temporal comparison between REMO and OSTIA





Strategies:

1. ENOI: ingest METOP-A, VIIRS and *in situ* SST from the buoy;

2. Create **synthetic Ensembles** for upwelling region and use them since buoy gives the signal;

3. To develop **local atmosphere correction** algorithm using (matchup of TB and *in situ*) and radiossounding data.

Plans for the coming year:

- To continue the **validation** of SST product;
- To develop a **high SST product** to Campus and Santos basins (including the identification of upwelling effect on SST);
- To performance **the inter-comparison** with GHRSST product in order make available our SST time series.

Think about next GHRSST Science Team Meeting could be in Rio de Janeiro…

Thank you!