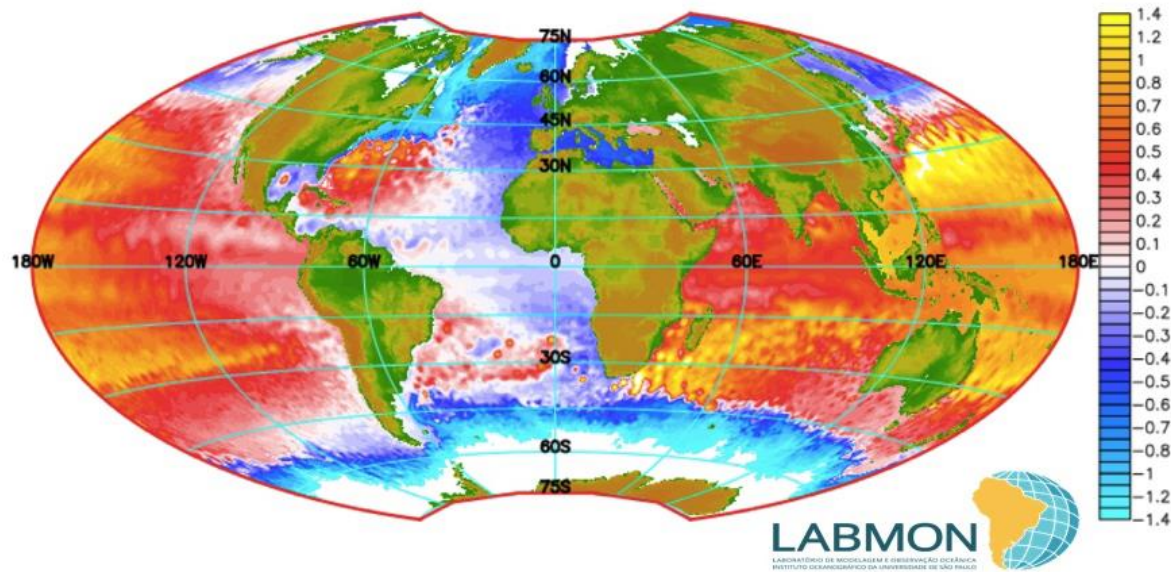


South Atlantic Operational Multi-model Evaluation

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LABMON 



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Mariana Gouvea, Felipe Alcantara**

Numerical Modeling Laboratory – LABMON/USP

Tetra Tech.



15th Layered Ocean Model Workshop - Copenhagen, Denmark – June 2-4/2015



Introduction



A system for operational multi-model evaluation was developed.

The methodological approach consisted on procedures to evaluate different operational simulations.



The operational models used:

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Model Id.	Model	Provider
RTOFS	HYCOM	NCEP/NCAR
GOFS	HYCOM	NRL/RSMAS
MERCATOR	NEMO	MERCATOR
LABMON	HYCOM	USP/Tetra Tech
Base4.2	POM	Tetra Tech



The operational data used:

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- Altimetry from AVISO
- SST from GHRSSST



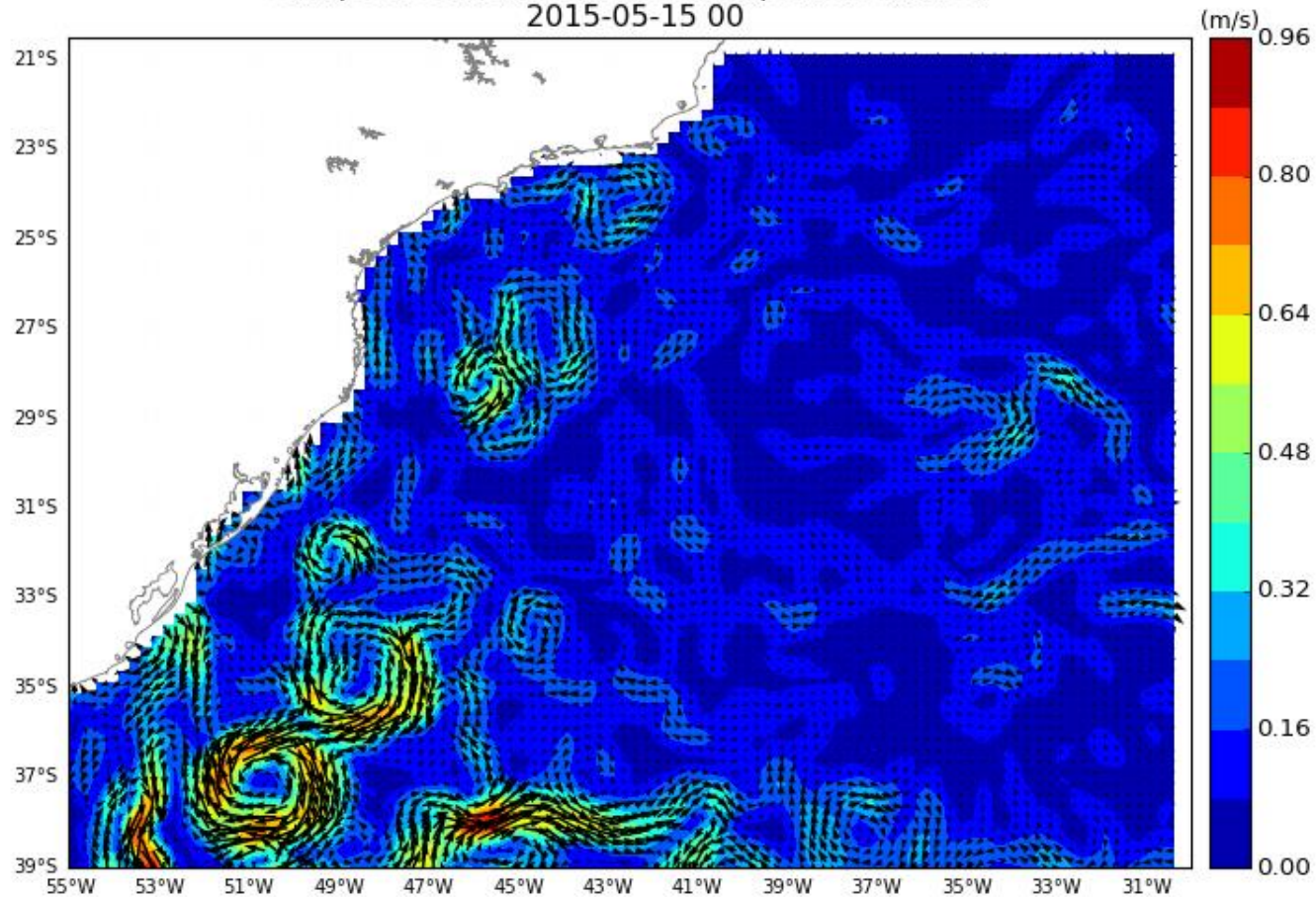
Dynamic velocities from AVISO altimetry

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Campo de corrente médio em superfície (AVISO)
2015-05-15 00



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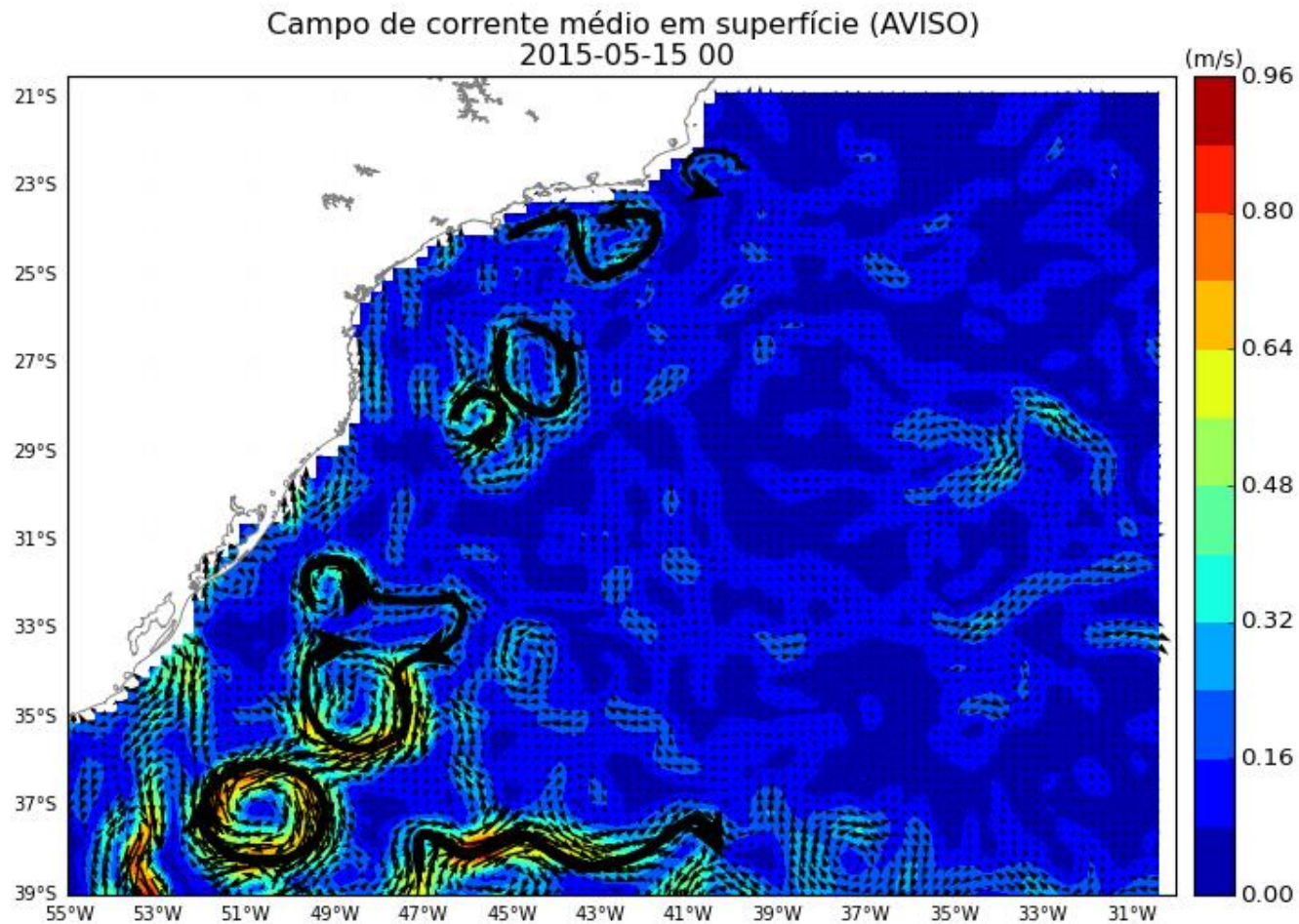
Main features – Mean surface currents (AVISO)

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Features Map!



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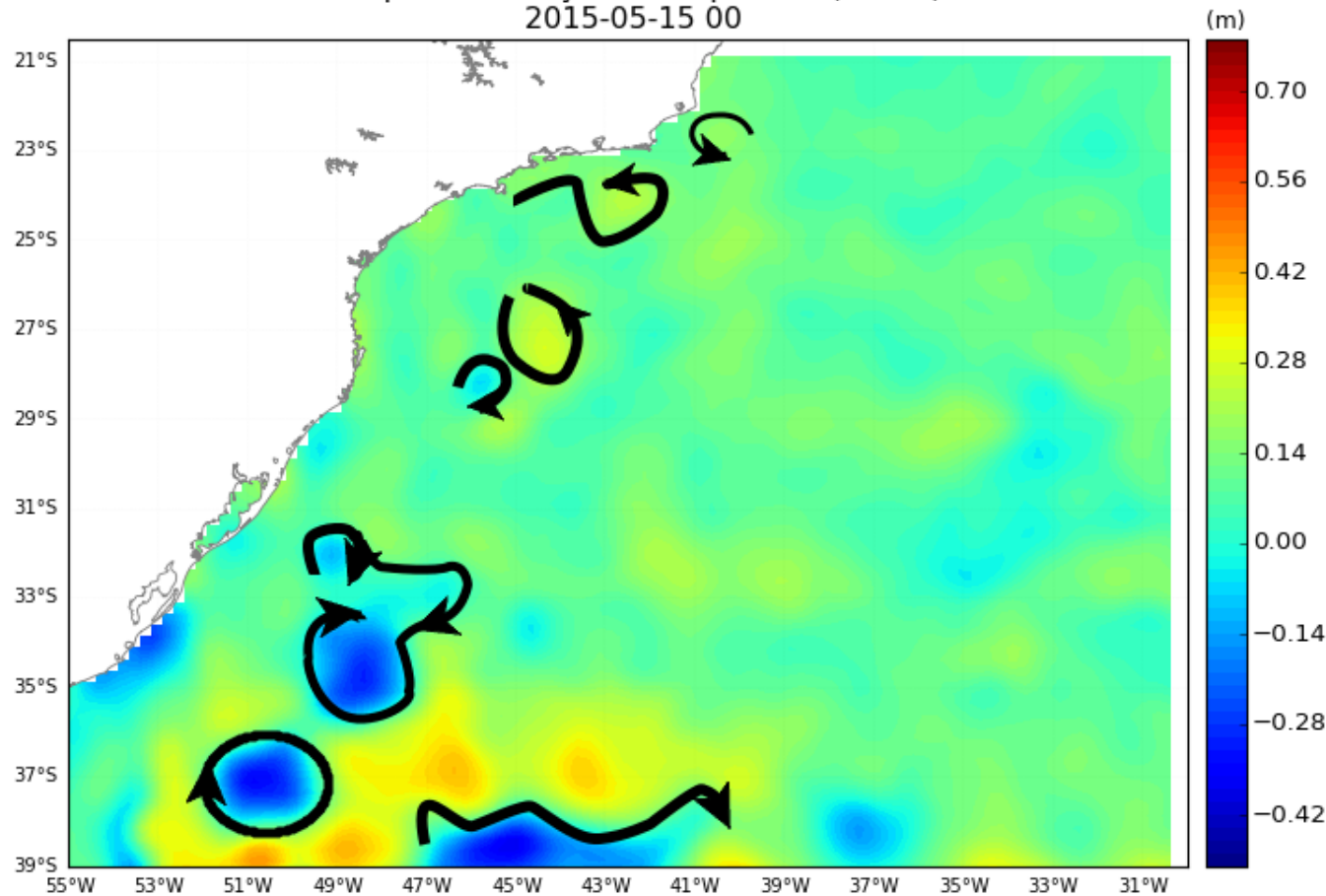
Main features – Surface elevation anomaly (AVISO)

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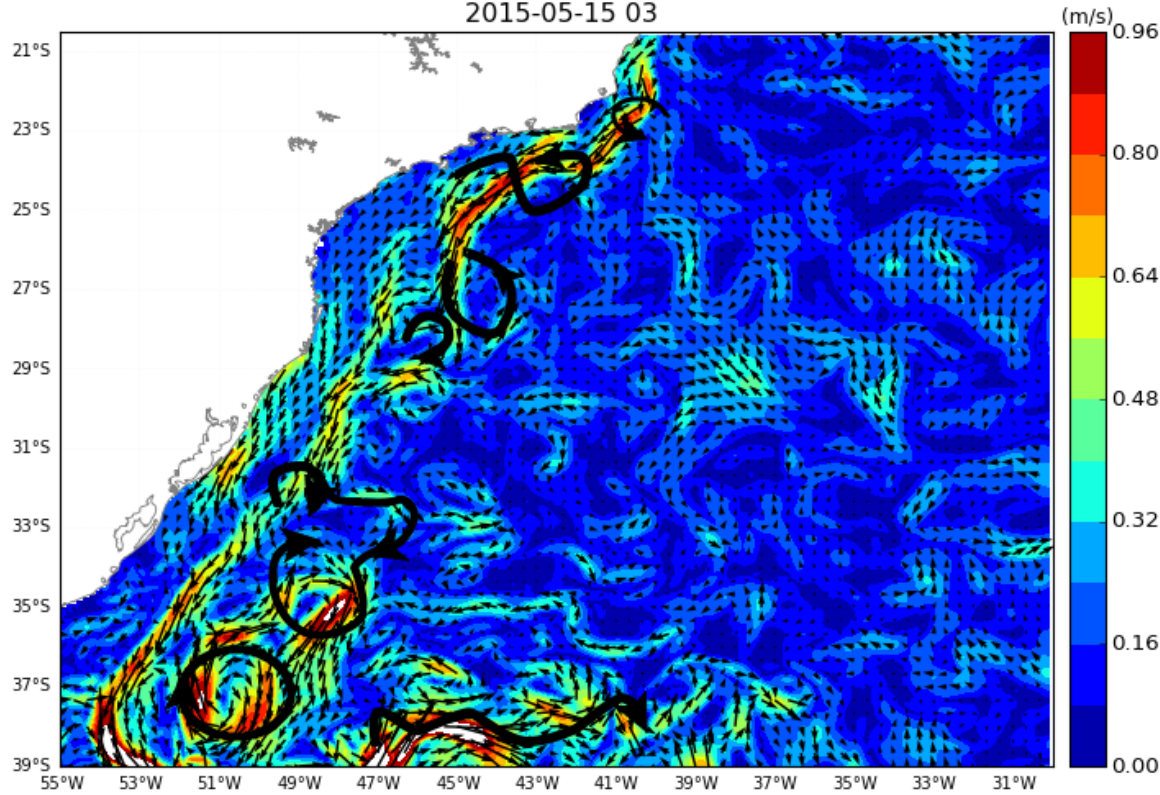
LABMON 

Campo de elevação em superfície (AVISO)
2015-05-15 00



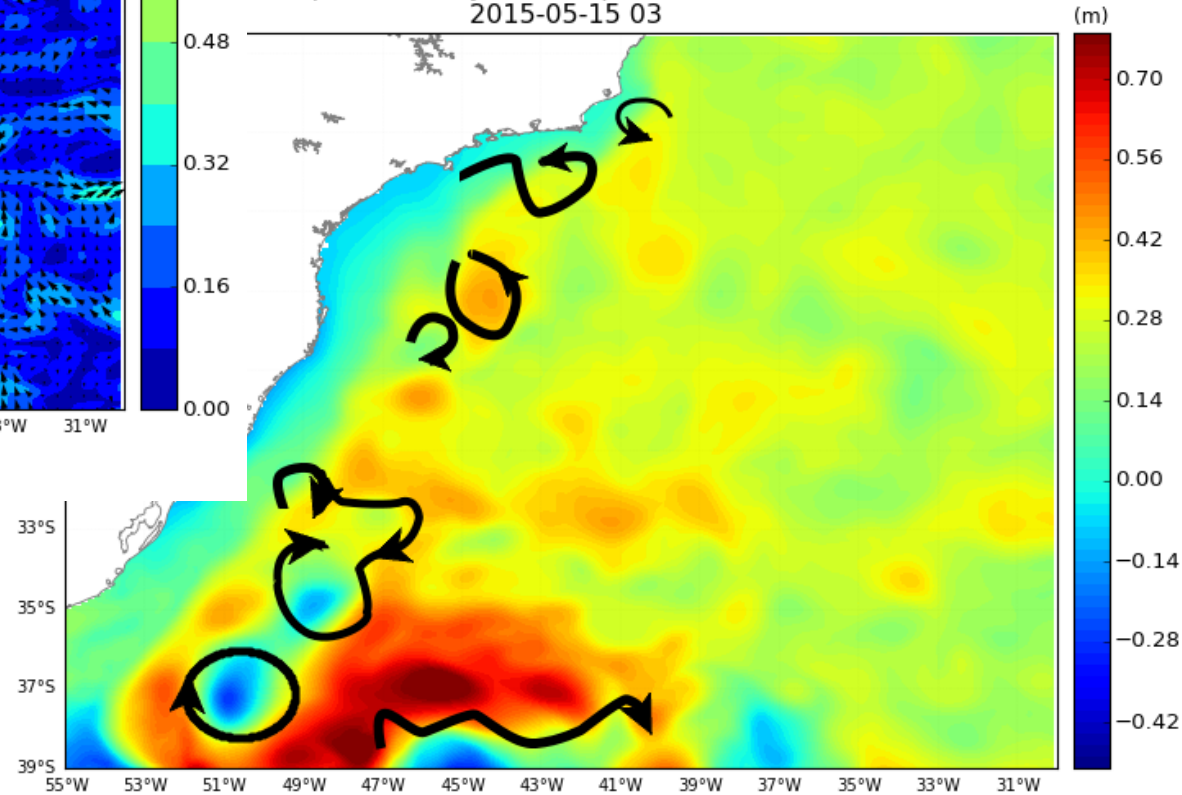
Features from different models:

Campo de corrente médio em superfície (MERCATOR)
2015-05-15 03



Mean surface currents
(MERCATOR)

Campo de elevação em superfície (MERCATOR)
2015-05-15 03



Surface elevation
(MERCATOR)

Operational data used

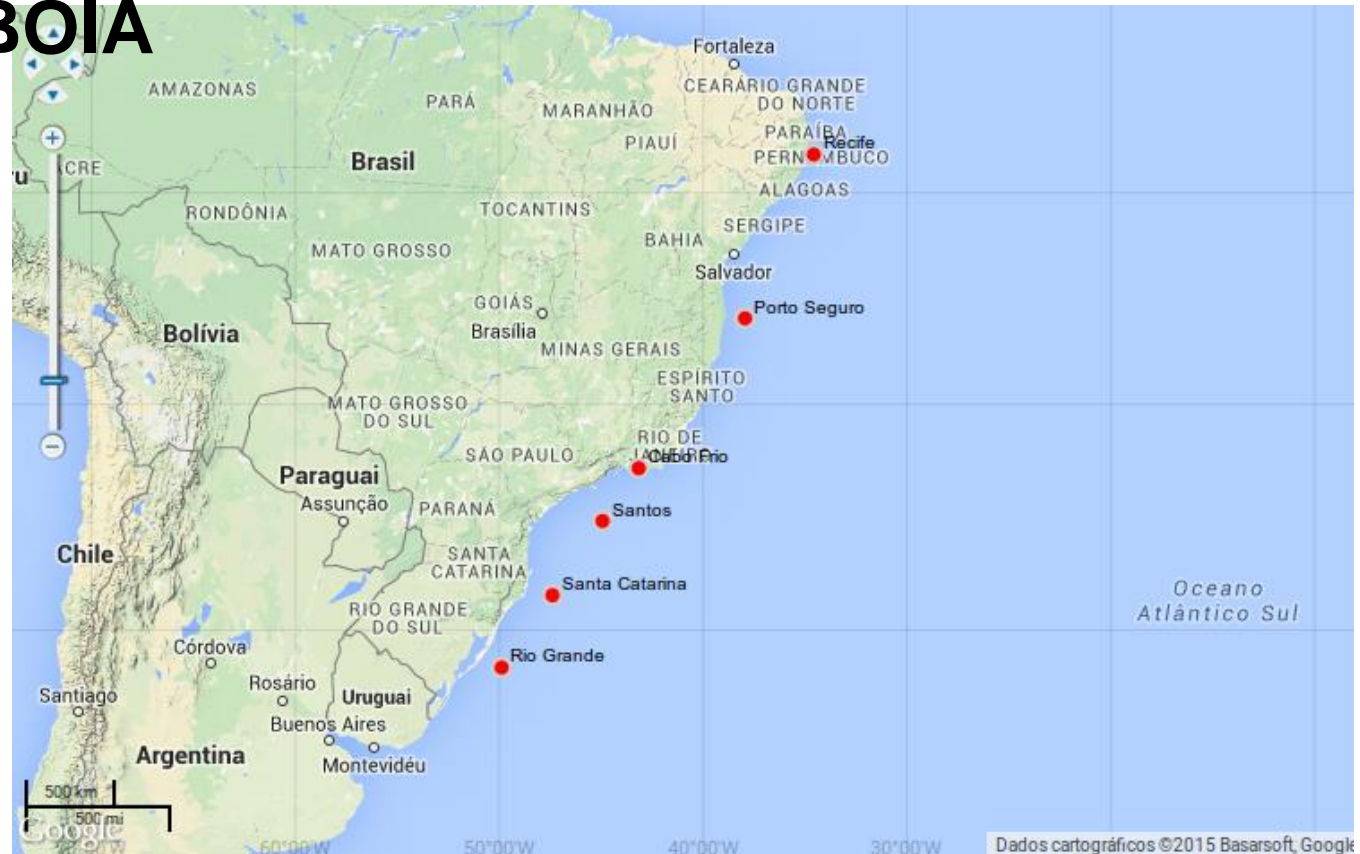
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Altimetry from AVISO

Buoys from PNBOIA

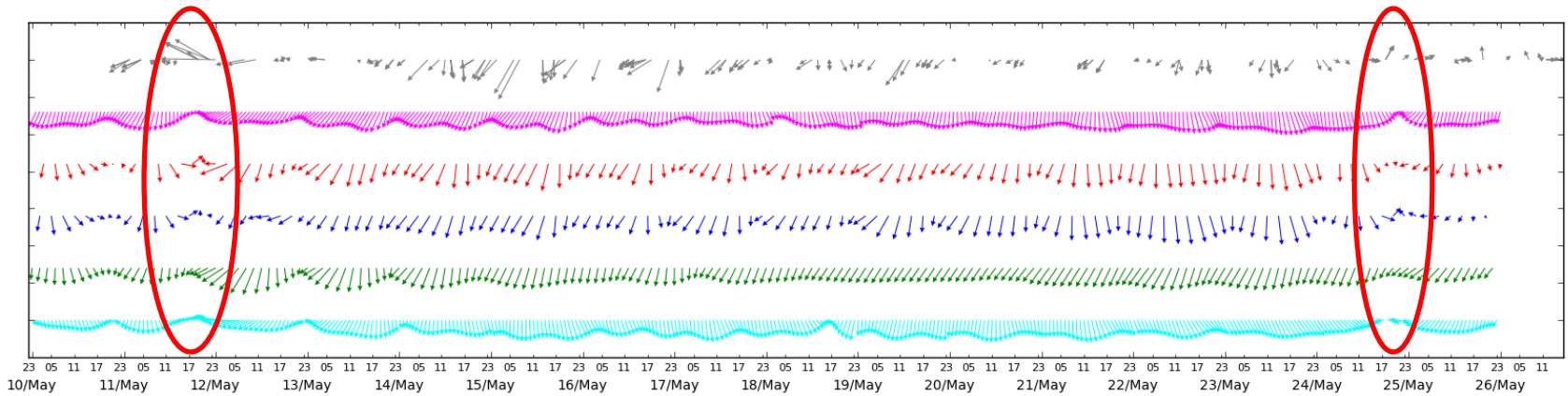
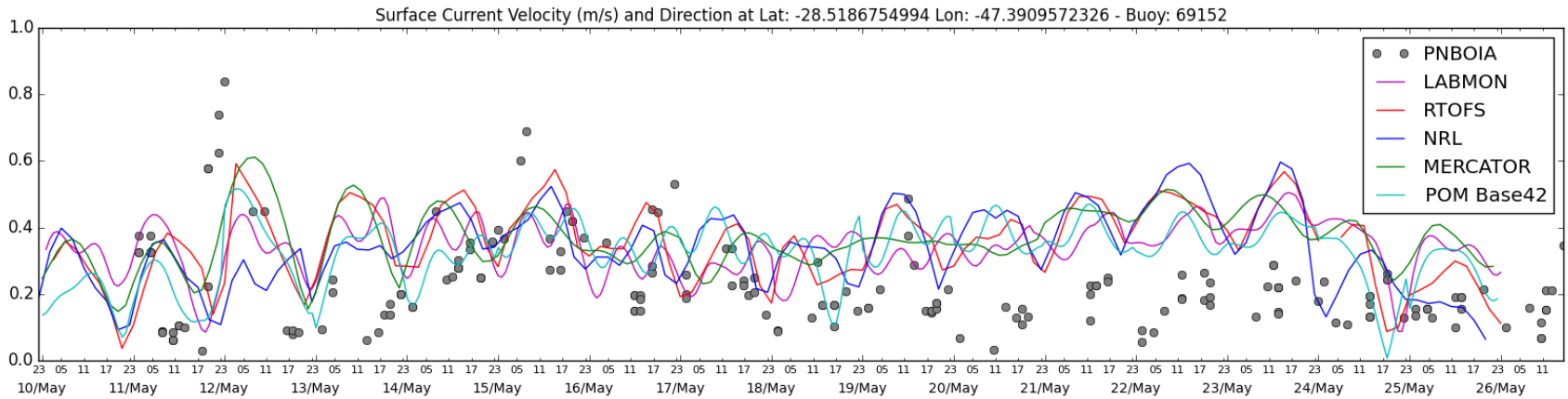
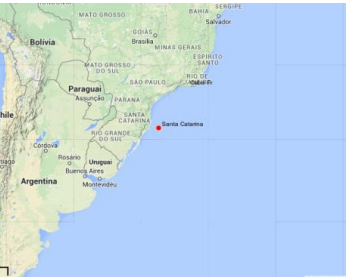


Time series from models and buoy B69152

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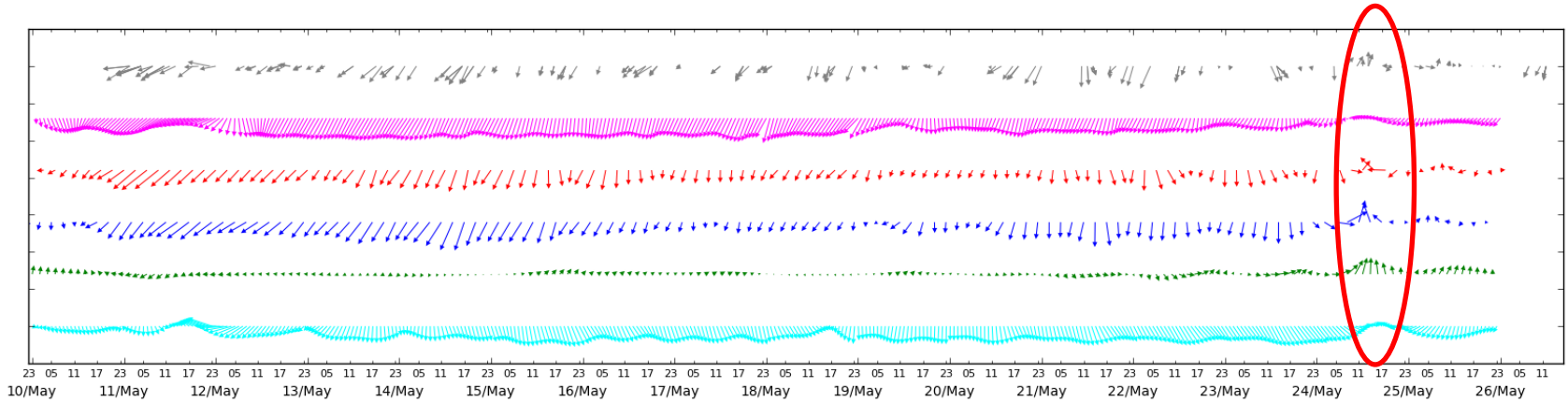
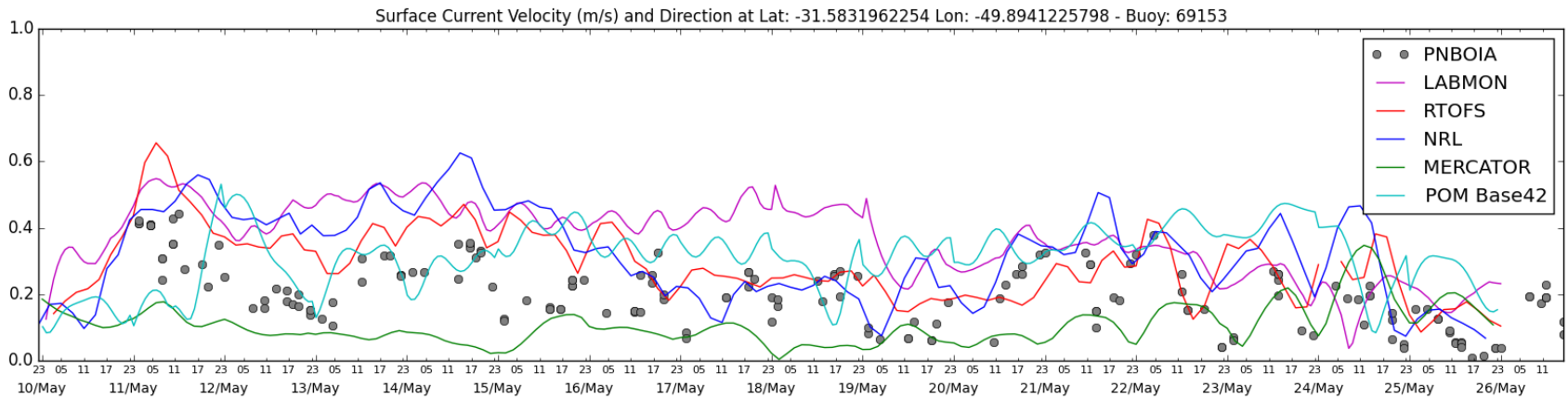
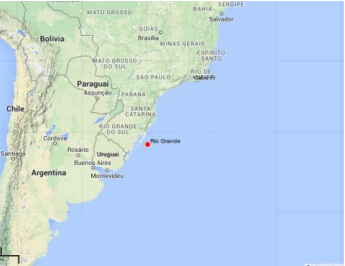


Time series from models and buoy B69153

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Operational data used

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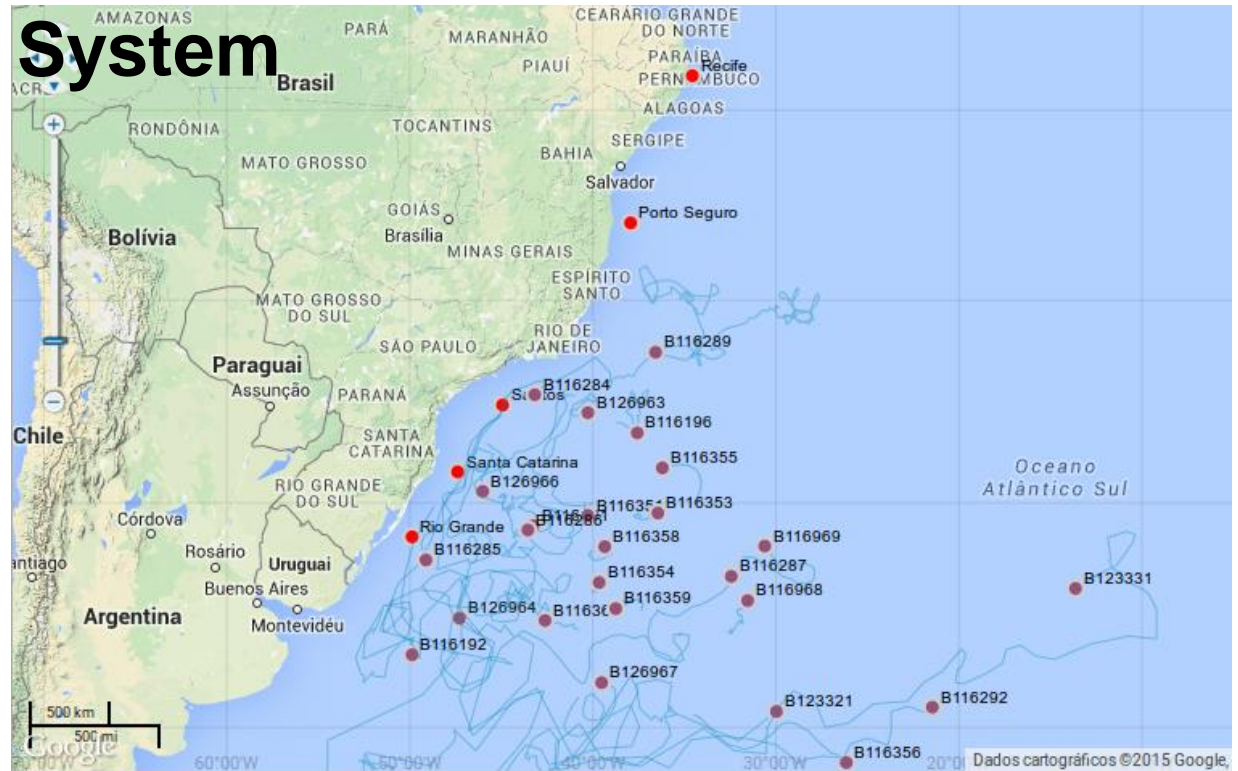
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Altimetry from AVISO

Buoys from PNBOIA

Drifters from Argos System

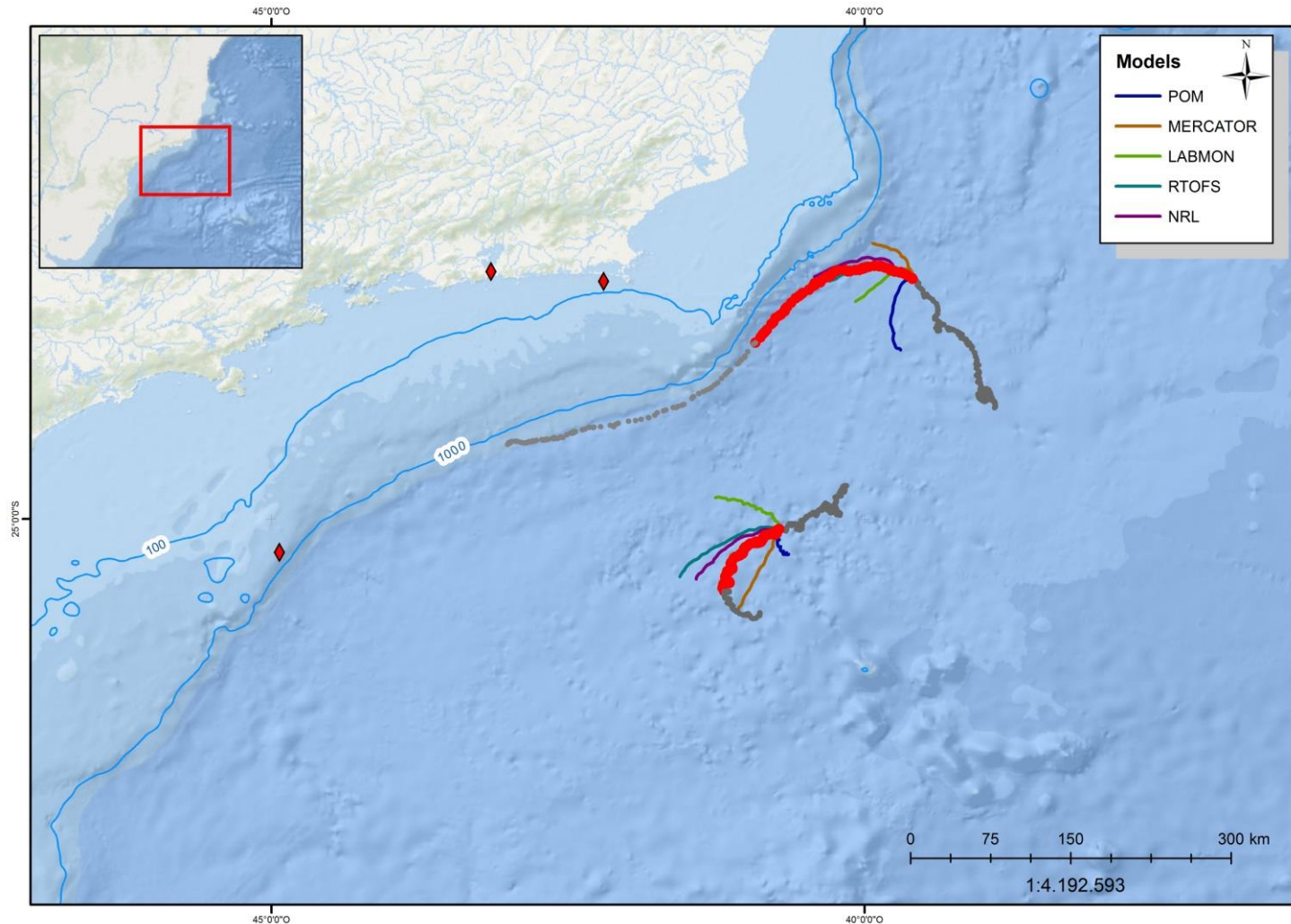


The drifters available in the analyzed period:

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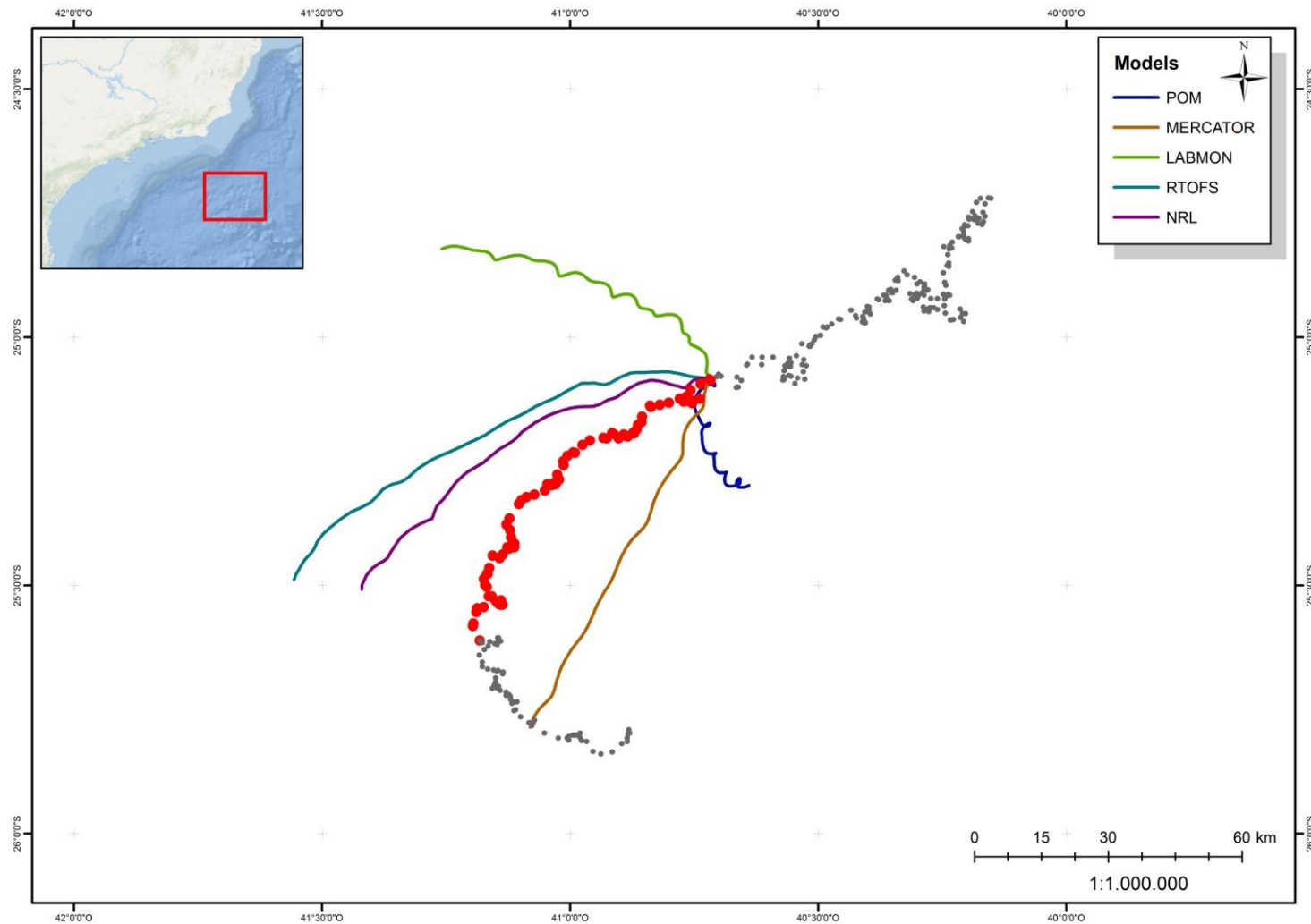


Drifter B126963 vs 5 days modeling starting at 15/05/2015 00Z

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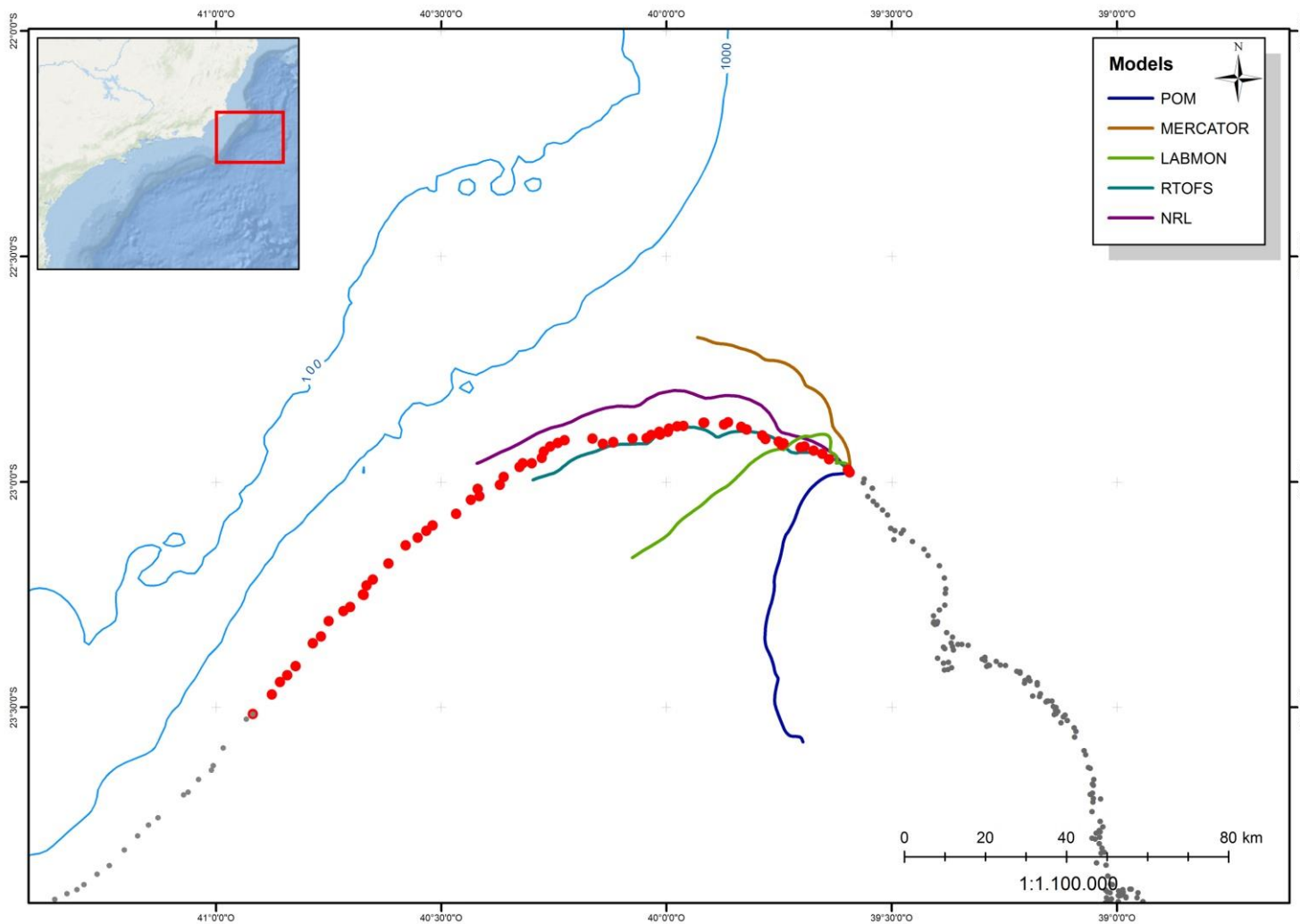


Drifter B116284 vs 5 days modeling starting at 15/05/2015 00Z

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Conclusion:



- The combination of different models can be helpful to forecast oceanic patterns, specially when combined with real-time observational data.
- A set of models can be used in operational forecasting to support decision making.
- A tool developed for operational multi-model comparison is effective to support oceanic forecasts.

