

Chapter 1

Results

The short time-frame and limited computational resources allowed for only a few complete global runs over the available data. It was therefor critical to carefully choose which method/parameters to use in order to maximize the deducible insight from the results. For best comparability of the results with each other it was decided to agree on one complete set of parameters as a basis, which would then be altered at key parameters. The first run is an attempt to reproduce the results from [Chelton et al. \[2011\]](#), by setting the algorithm to be the most similar to the algorithm described by [them](#). The SSH-data for this run is therefor that of the Aviso product. This method will be called **MI**.

The second run is equivalent, except that this time all new alternative methods as described in [2](#) are used. This setting will be called **MII**. Both **MI** and **MII** are then fed with 7-day time-step POP data as well. To investigate what role time-resolution plays an **MII**/3-day-time-step run over POP data was started next. Finally, to further investigate the effects of resolution in space, the POP data was remapped to that of the Aviso data and fed to the **MI** method. Start and end dates were fix for all runs as the intersection of availability of both data sets (POP and Aviso).

1.0.1 **MI**- 7day - Aviso

The algorithm used in this section is loosely based on the description of the algorithm described by [\[Chelton et al., 2011\]](#).

lookup term used
for krummes grid

time frame	1994-01-05 till 2006-12-27
scope	full globe (80S : 80N 180W : 180E)
AVISO geometry	641x1440 true Mercator
POP geometry	2400x3600

Figure 1.1: Fix parameters for all runs.

SSH-data	POP	Aviso	POP2Aviso
method	MI	MII	
time-step	7	3	

Figure 1.2: Variable parameters.

Chapter 2

TODO

Bibliography

Dudley B. Chelton, Michael G. Schlax, and Roger M. Samelson. Global observations of non-linear mesoscale eddies. *Prog. Oceanogr.*, 91(2):167–216, October 2011. ISSN 00796611. doi: 10.1016/j.pocean.2011.01.002. URL <http://linkinghub.elsevier.com/retrieve/pii/S0079661111000036>.