

# ORCA025, 180m temperature monthly mean, after 7 months

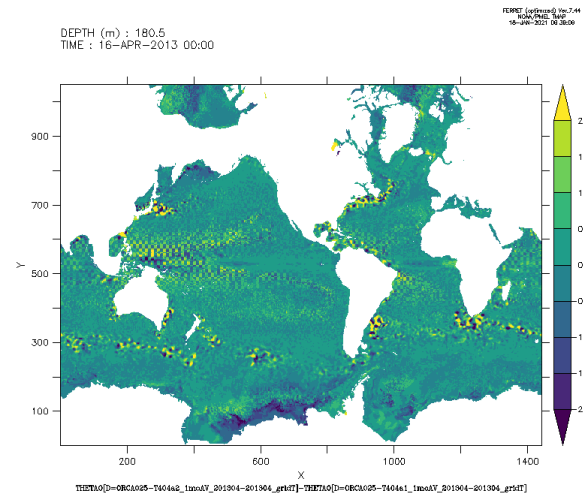
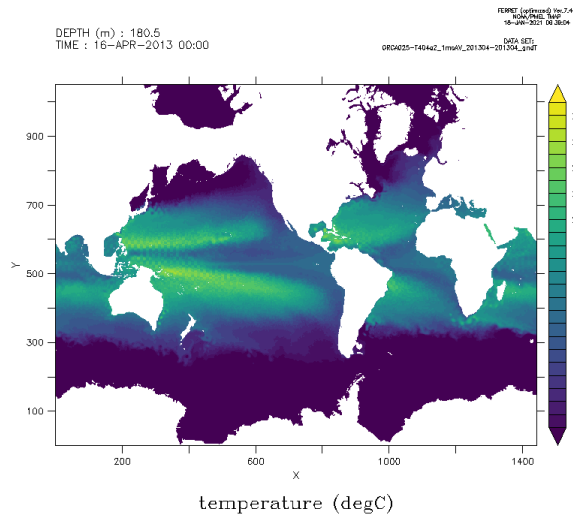
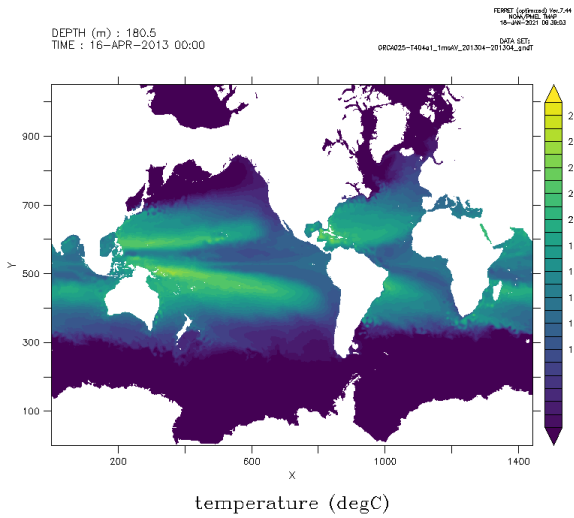
Gurvan isopycnal operator

Triad isopycnal operator

Triad isopycnal operator

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Gurvan isopycnal operator

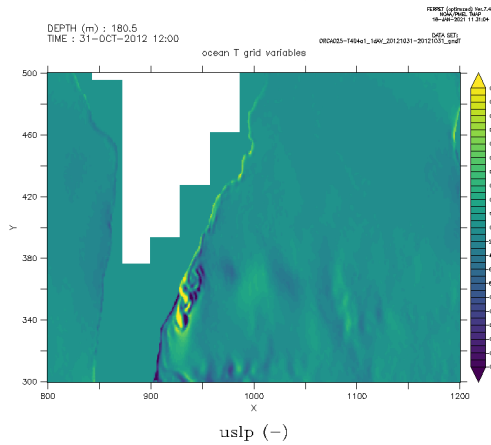


Run with triads crashes  
the month after...

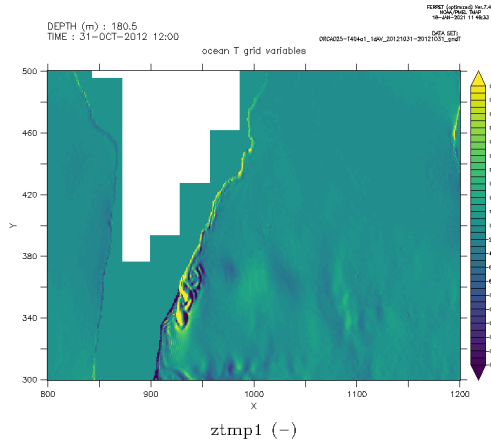
# ORCA025, instantaneous slopes after 1 month

## Gurvan isopycnal operator

### U-slope

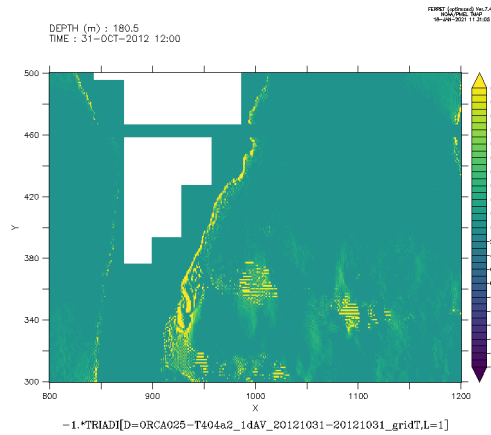


### U-slope before shapiro

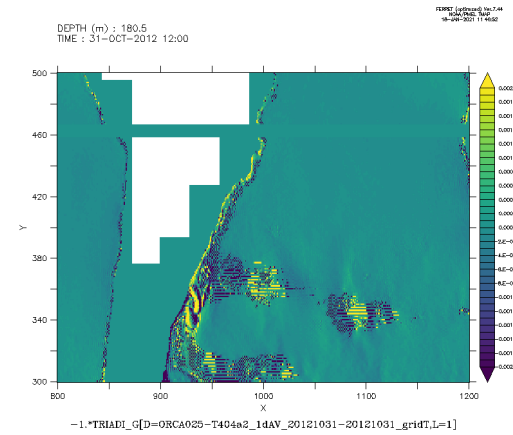


## Triad isopycnal operator

slopes relative to geopotentials  
from one triad for I-direction



slopes relative to model-coordinate  
from one triad for I-direction



Triads slopes are noisy, compare to classical operator ( $rn\_Ud = 0.018$ ).

With 4 times more diffusion ( $rn\_Ud = 0.072$ ), its is worth (not shown)

# ORCA025, instantaneous slopes after 1 month

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## add shapiro smoothing for triads slopes

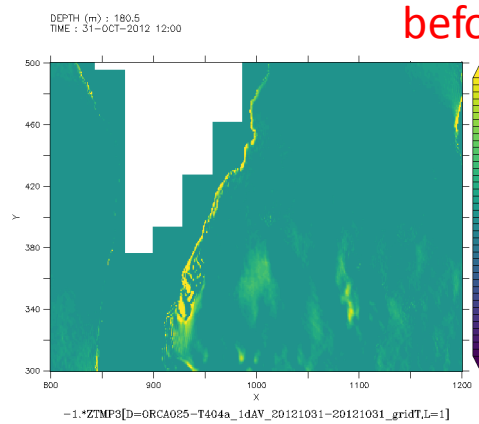
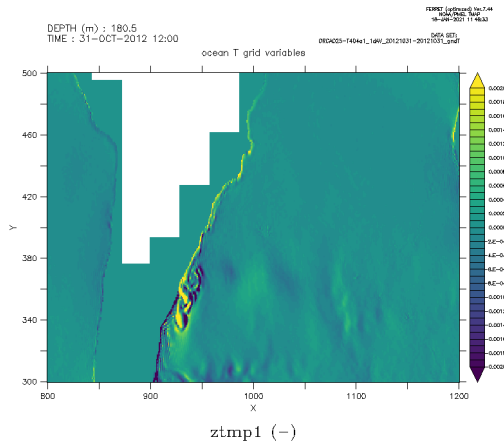
Gurvan isopycnal operator

Triad isopycnal operator

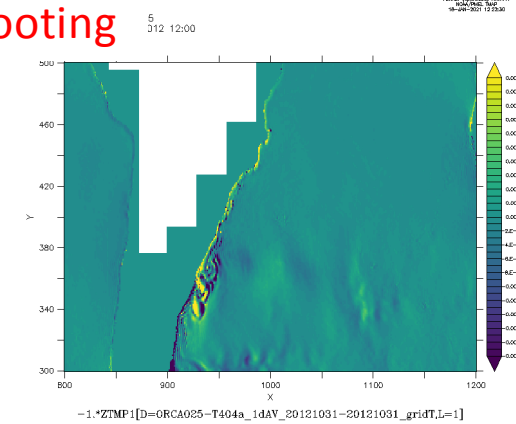
U-slope **before smooting**

slopes relative to geopotentials  
from one triad for I-direction

slopes relative to model-coordinate  
from one triad for I-direction

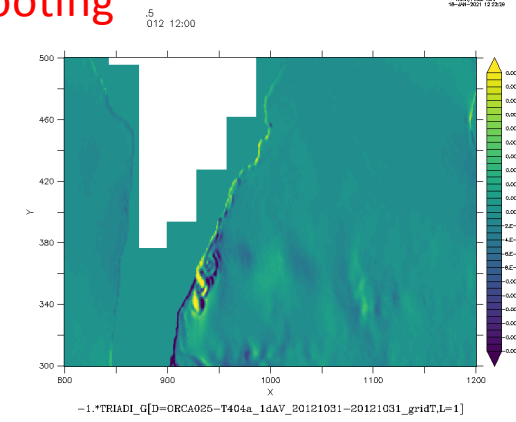
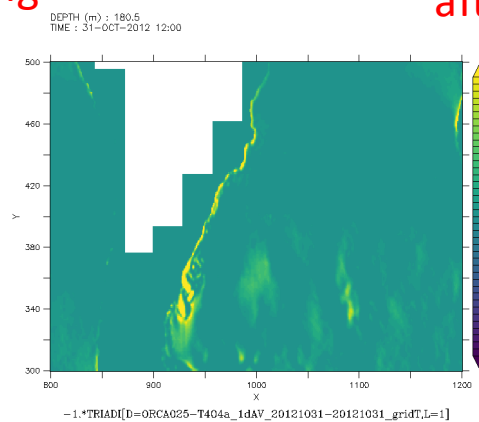
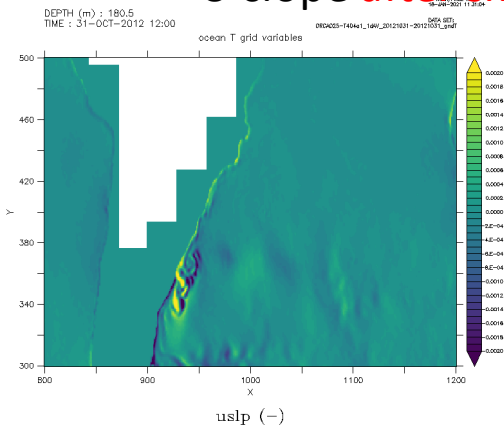


**before smooting**



U-slope **after smooting**

**after smooting**

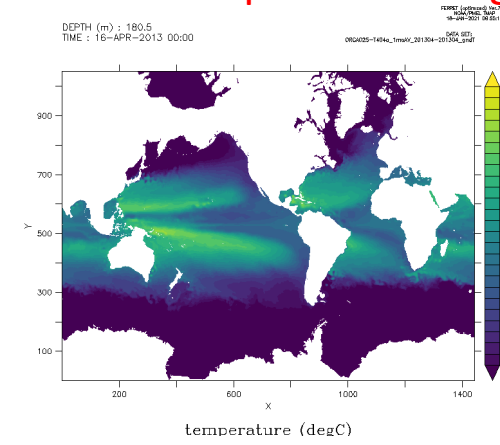
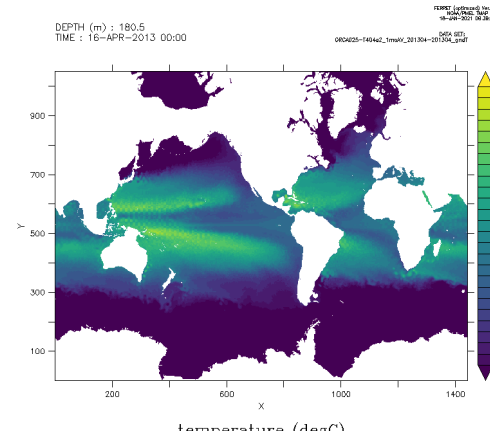
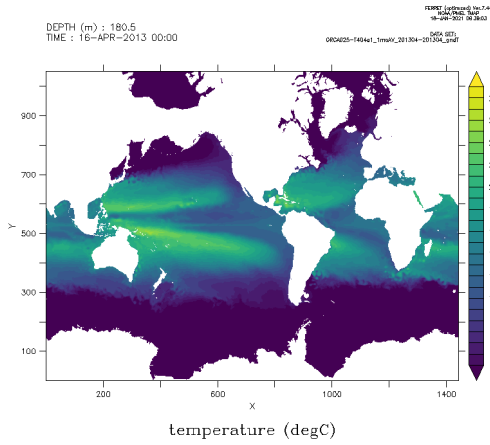


# ORCA025, monthly mean, **after 7 months**

Gurvan isopycnal operator

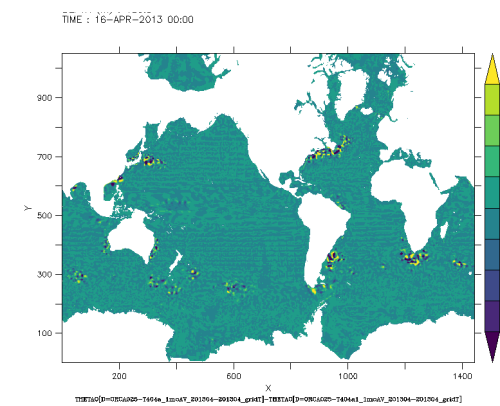
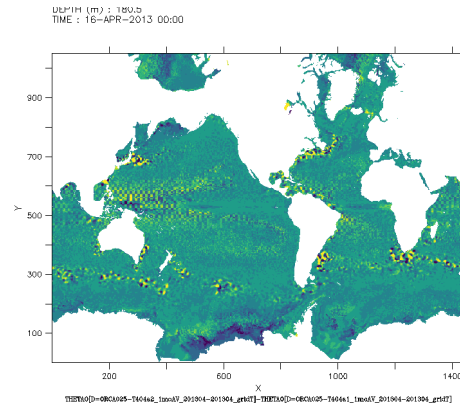
Triad isopycnal operator

Triad isopycnal operator  
**with slope smoothing**



Triad isopycnal operator  
- Gurvan isopycnal operator

Triad isopycnal operator **with slope smoothing**  
- Gurvan isopycnal operator



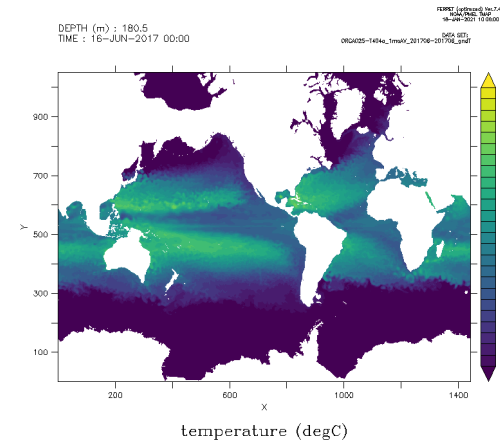
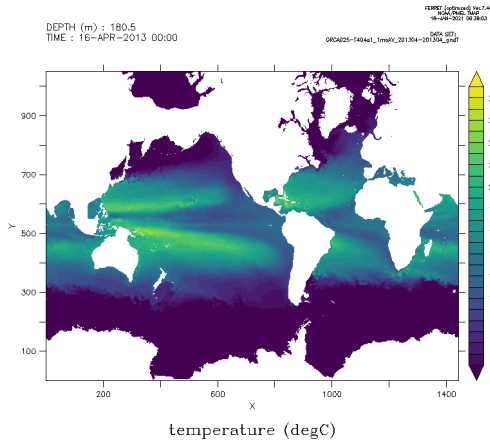
# ORCA025, monthly mean, **after 5 years**

Gurvan isopycnal operator

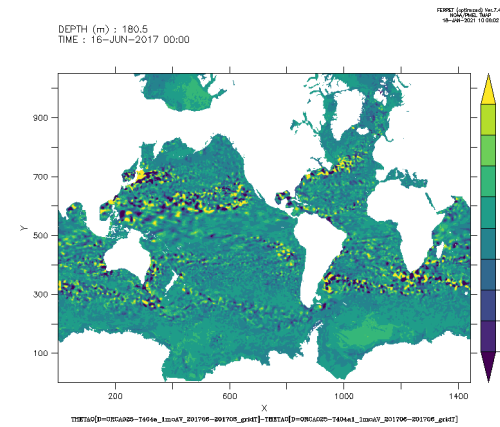
Triad isopycnal operator

Triad isopycnal operator  
**with slope smoothing**

Crashed before

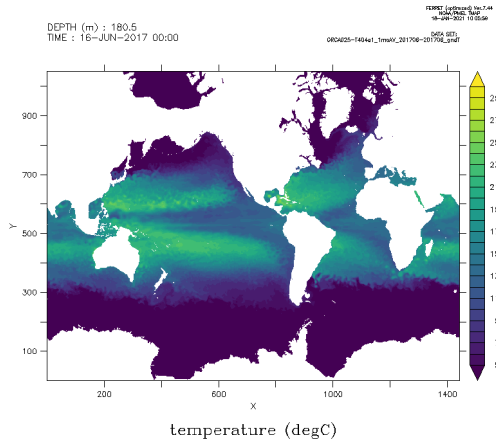


Triad isopycnal operator **with slope smoothing**  
- Gurvan isopycnal operator



# ORCA025, monthly mean, after 5 years

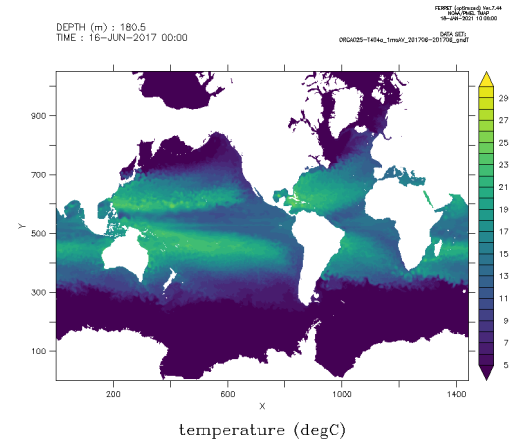
## Traldf\_iso



## Traldf\_triad

Crashed before

## Traldf\_triad with slope smooting



## Traldf\_triad - trald\_iso

