

Figure legends

Table.1 The quantities of the Argo floats trapped inside an eddy

The quantities of the Argo floats trapped inside an eddy	The quantities of the cyclones	The quantities of the anticyclones	Total quantities of the eddies
1	207863	206333	414196 (89.76%)
2-20	24056	22859	46915 (10.17%)
21-80	135	211	346 (0.07%)

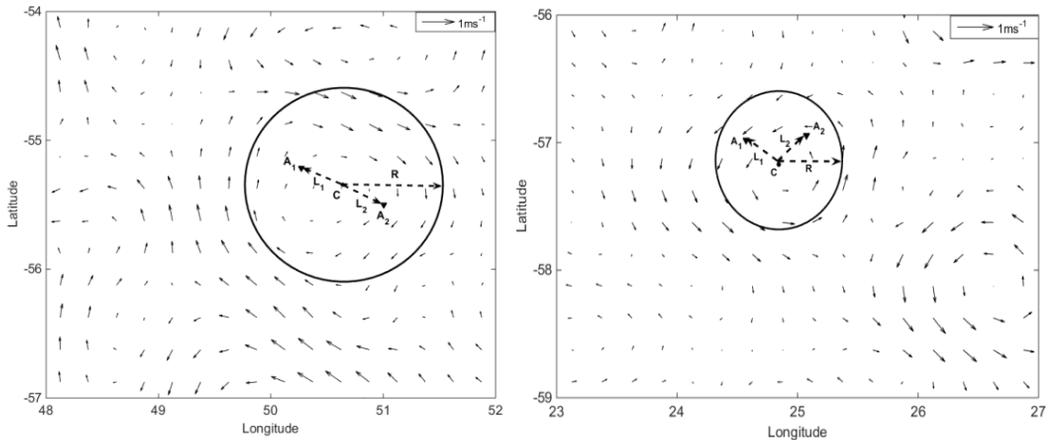


Fig. 1 Rotational symmetry component of the eddies and illustrative examples of the Argo floats collected from the eddies. Left, cyclone; right, anticyclone. F, the position of the Argo floats; C, eddy center.

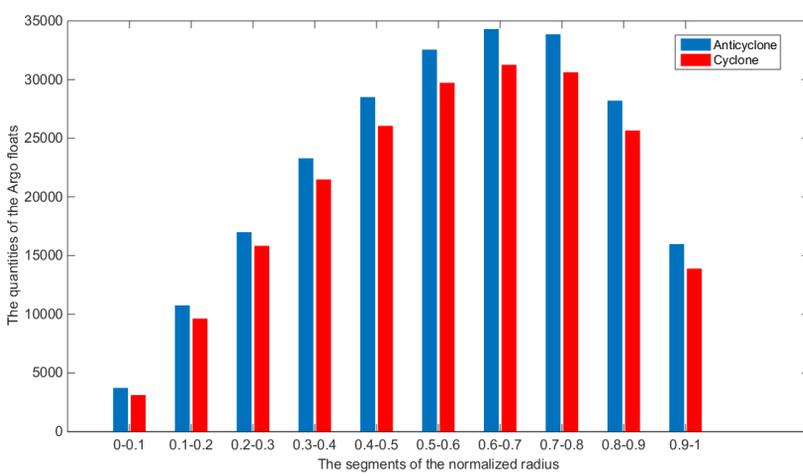


Fig. 2 Histogram of the number of Argo floats inside a normalized eddy.

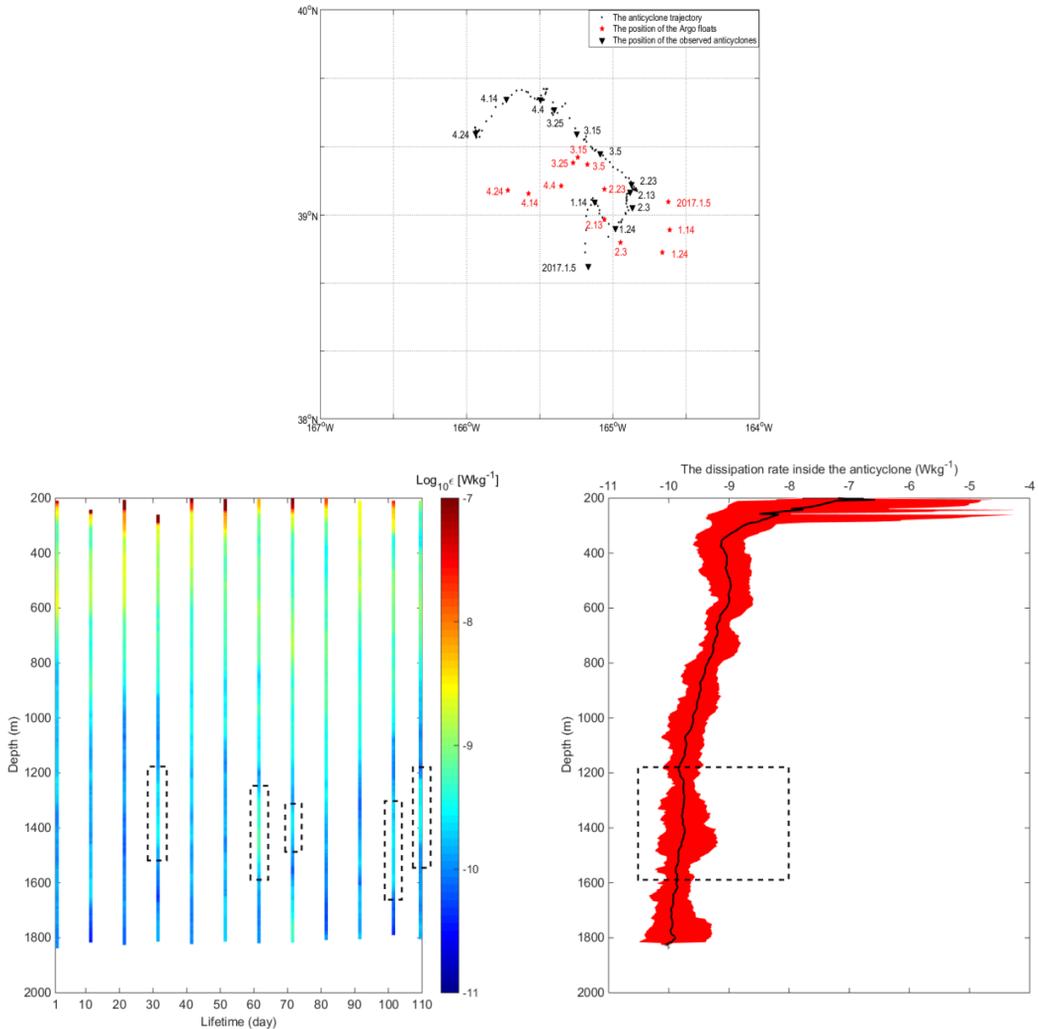


Fig. 3 Example of an anticyclone trajectory to illustrate the variability of the turbulent dissipation rate along the eddy trajectory. (a) Positions of the observation stations and the anticyclone trajectory. (b) Dissipation rate profiles along the anticyclone trajectory. (c) Average turbulent dissipation rate profile.

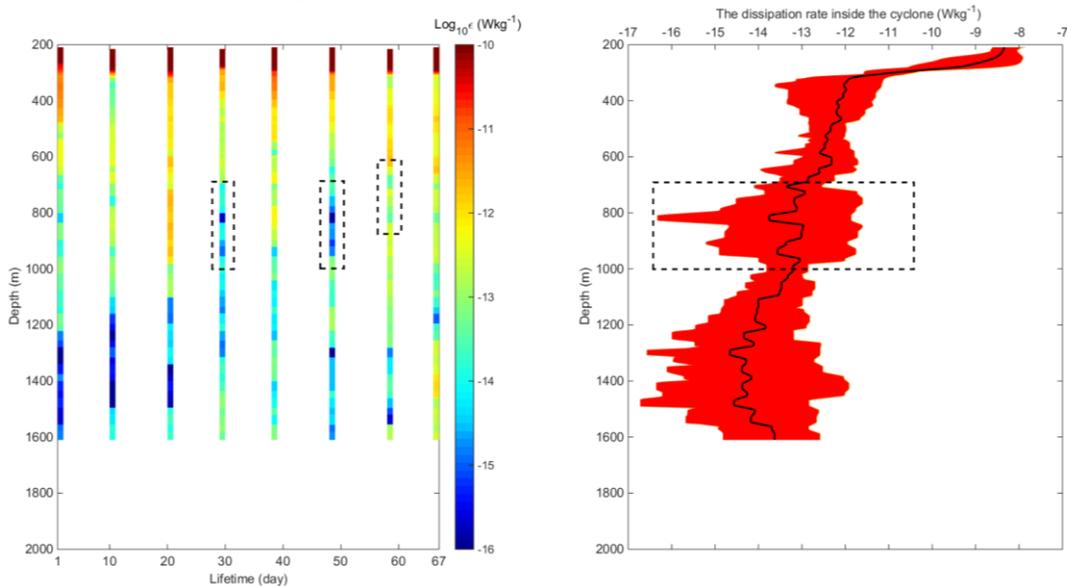
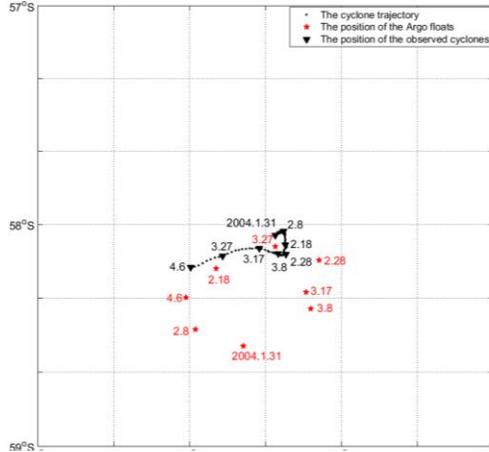


Fig. 4 Example of a cyclone trajectory to illustrate the variability of the turbulent dissipation rate along the eddy trajectory. (a) Positions of the observation stations and the cyclone trajectory. (b) Dissipation rate profiles along the cyclone trajectory. (c) Average turbulent dissipation rate profile.

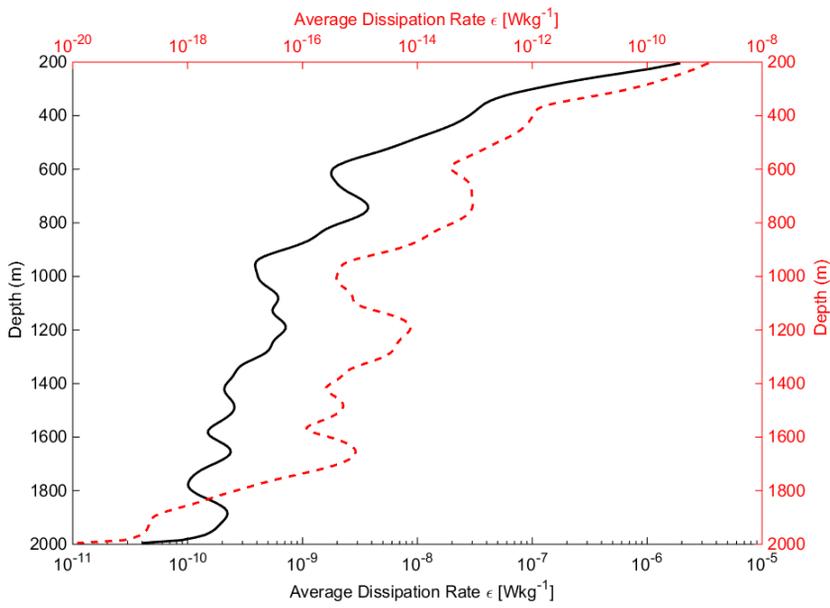


Fig. 5 Vertical profile of the average dissipation rate inside eddies. The red dotted line indicates variance.

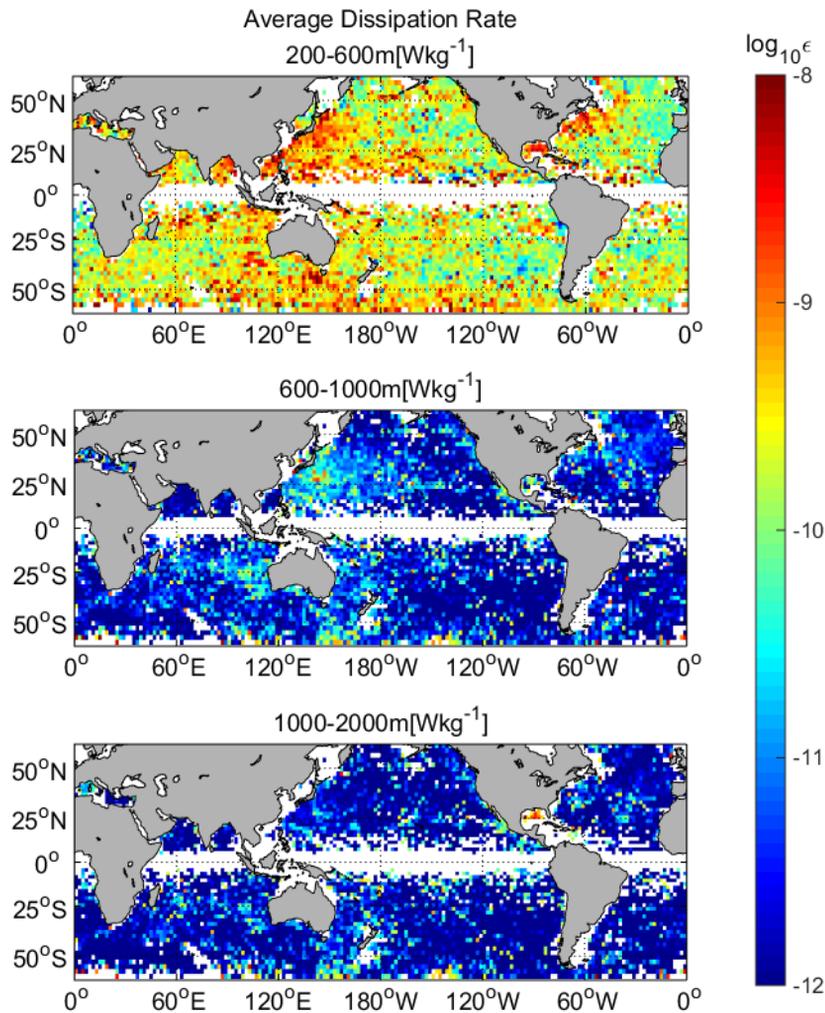


Fig. 6 Spatial distribution of the turbulent dissipation rate inside eddies.

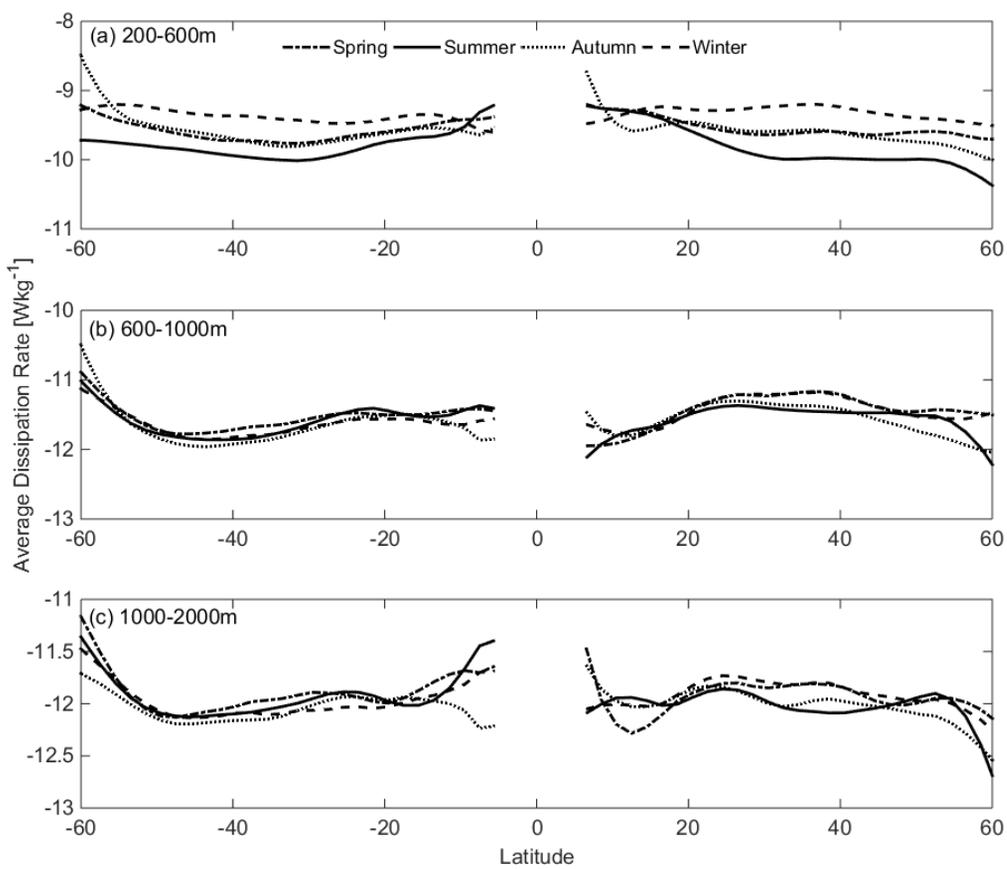


Fig. 7 Seasonal distribution of the turbulent dissipation rate inside eddies.

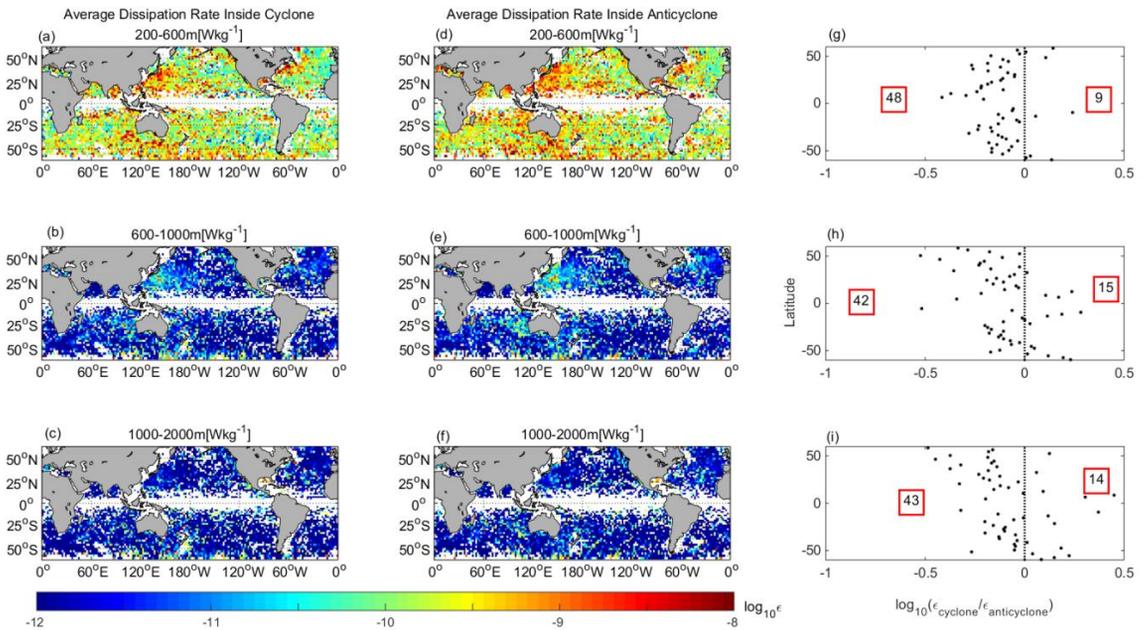


Fig. 8 Comparison of the turbulent dissipation rate inside cyclones and anticyclones.

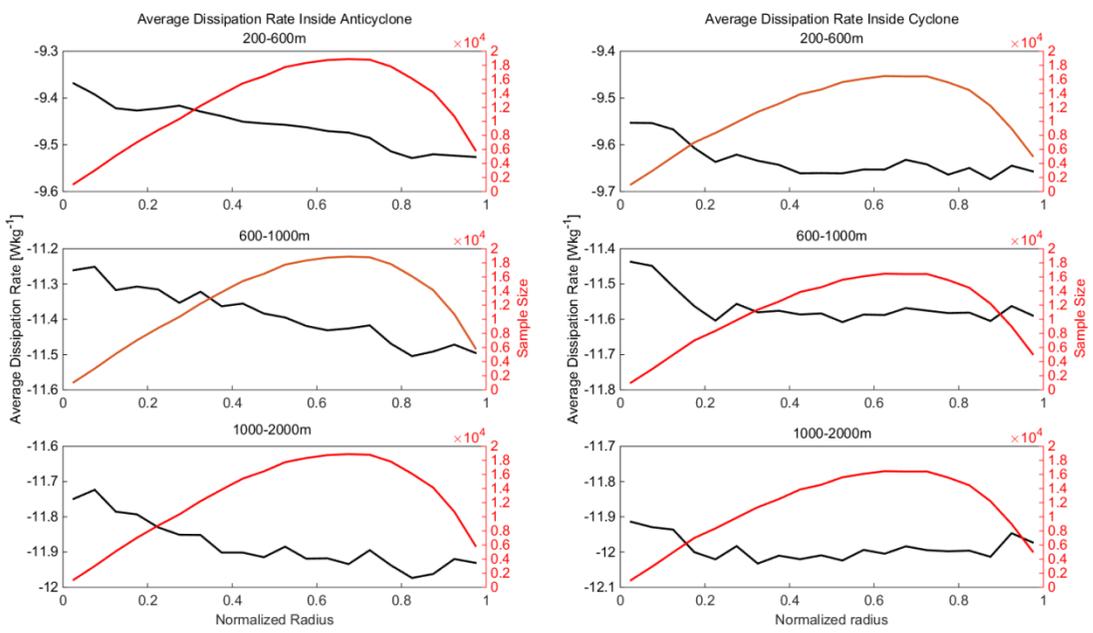


Fig. 9 Relationship between turbulent dissipation rate inside eddies and the normalized eddy radius. The red line indicates the number of samples.

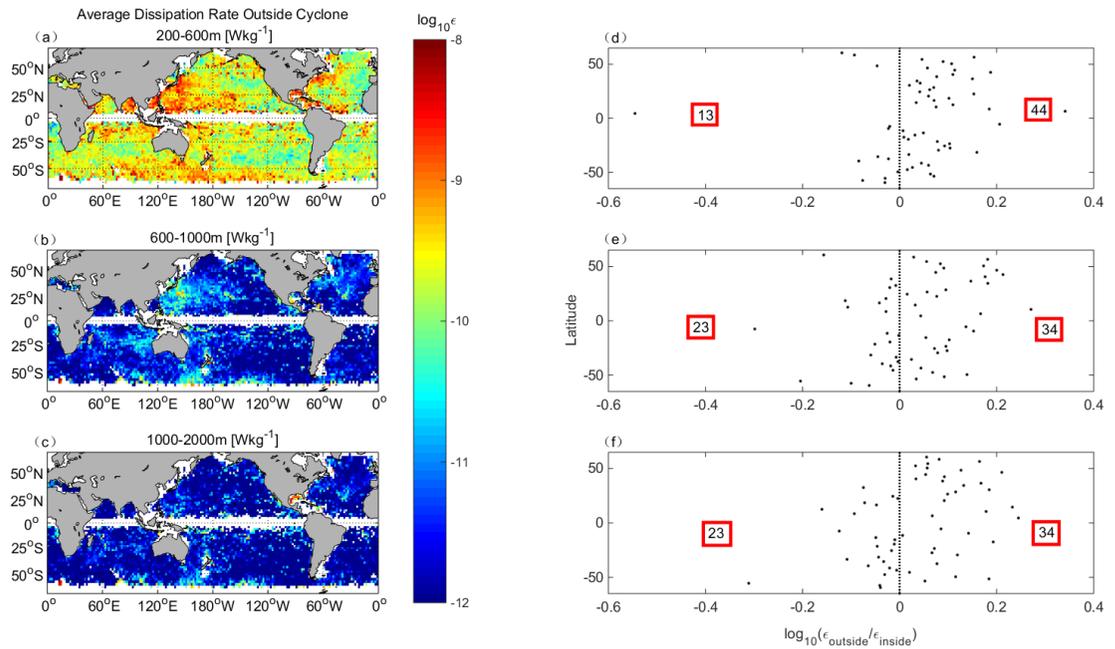


Fig. 10 Comparison of the turbulent dissipation rate inside and outside cyclones.

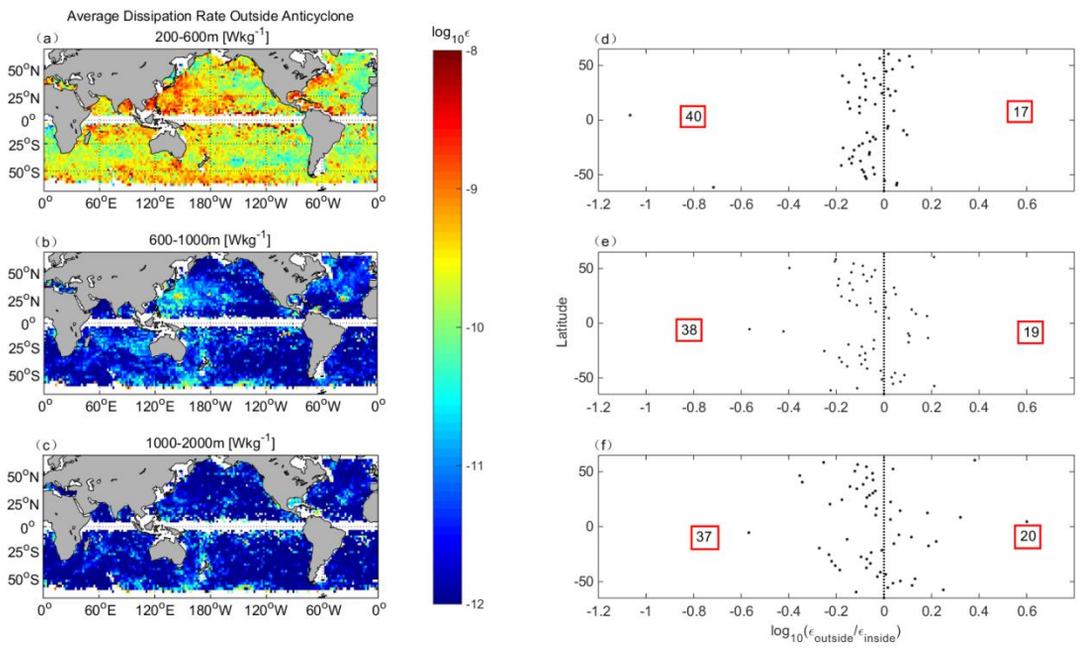


Fig. 11 Comparison of the turbulent dissipation rate inside and outside anticyclones.

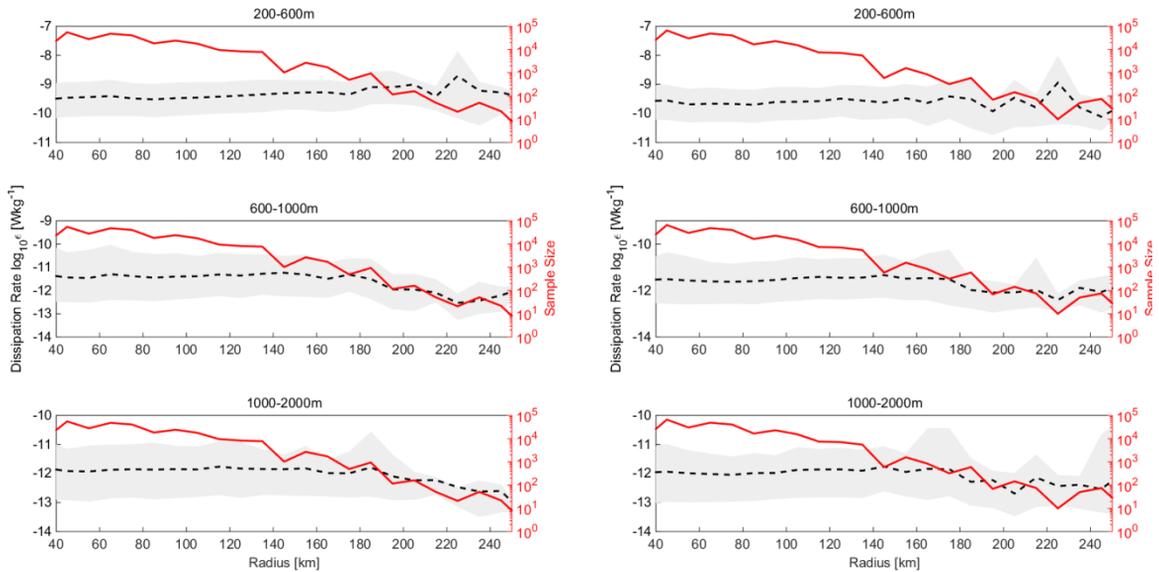


Fig. 12 Relationship between the turbulent dissipation rate inside eddies and the eddy radius. Left, cyclones; right, anticyclones. The red line indicates the number of samples.

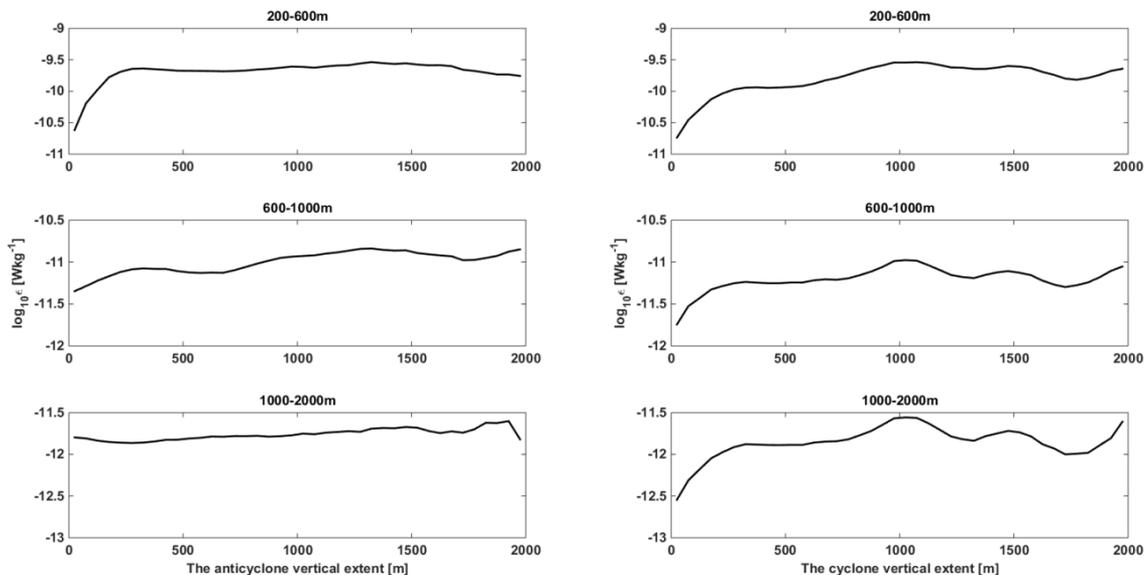


Fig. 13 Relationship between the turbulent dissipation rate inside eddies and the eddy vertical extent. Left, anticyclones; right, cyclones.

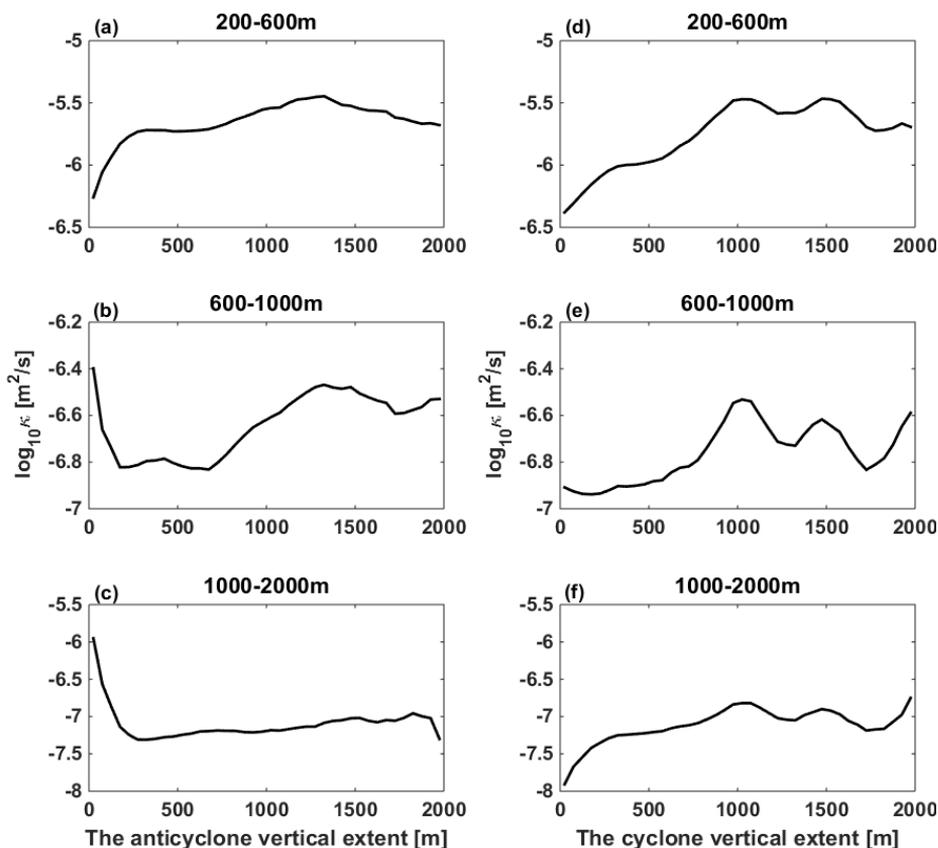
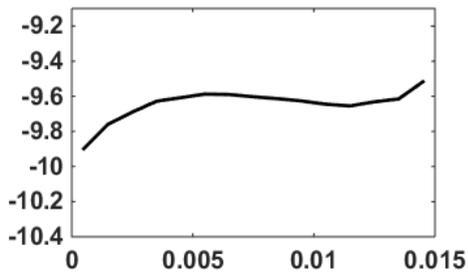
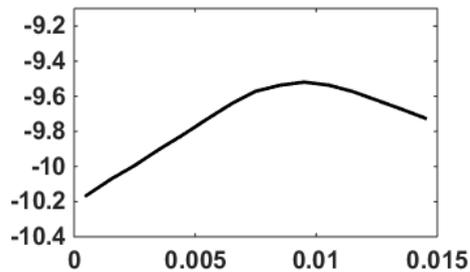
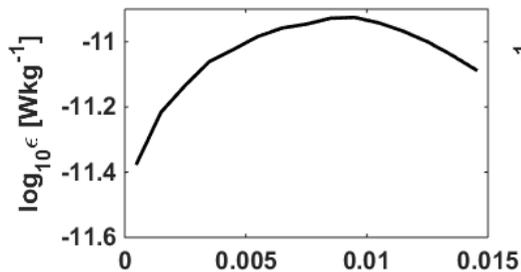
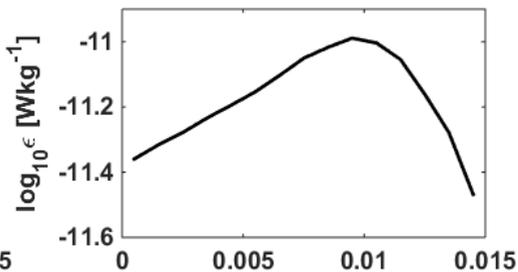
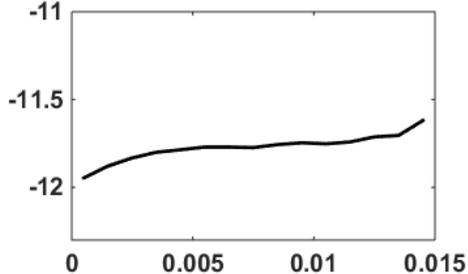
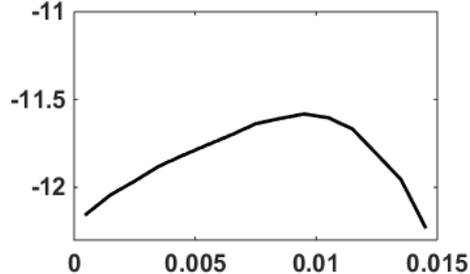


Fig. 14 Relationship between the turbulent diffusivity inside eddies and the eddy vertical extent. Left, anticyclones; right, cyclones.

200-600m**200-600m****600-1000m****600-1000m****1000-2000m****1000-2000m**

The anticyclone aspect ratio

The cyclone aspect ratio

Fig. 15 Relationship between the turbulent dissipation rate inside eddies and the eddy aspect ratio. Left, anticyclones; right, cyclones.