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Vortices generation mechanisms in North western Mediterranean Sea

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Mesoscale eddies have been observed in Northwestern Mediterranean Sea from satellites, RV cruises and more recently using HF radars. Different non linear mechanisms have been identified and investigated using process oriented high resolution numerical modelling. In particular, wind induced inertial motion and baroclinic instability cases have been illustrated and documented. Statistics of vortices occurence allow a better accounting for coherent structures for pollutants and nutriments dispersion and retention.

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