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20 years of reprocessed Lyapunov Exponents from altimetry available on AVISO+

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SARAL/AltiKa is able to sample the small mesoscale signal with a noise measurement error never reached in nadir conventional altimetry. The SARAL/AltiKa 1-Hz measurement is used in the SSALTO/DUACS system since July 2013 and largely contributes to the quality of the Level4 merged products. These products, are now widely used to define the surface geostrophic currents and beyond that they are used to provide proxies of (sub-)mesoscale transport fronts via the Lyapunov Exponents (LEs). The LEs are being increasingly used in physical, biogeochemical, and ecological applications, ranging from real-time support to field studies to co-localisation of animal tracking with Lagrangian Coherent Structures. In order to better serve the users need, and in collaboration with different laboratories (LOCEAN and CTOH), the LEs and vectors are computed over the 21 year altimeter period and over the global ocean within the SSALTO/DUACS project. This product provides the position, and intensity, and orientation of fronts induced by the mesoscale eddies and underlining part of sub-mesoscale activity. We present here the LEs that will be available on AVISO+ early 2015.