



## **Mesoscale interannual variability off the Oregon coast based on satellite data**

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Along track Sea Level Anomalies (SLA), derived from radar satellites measurements, are combined with tide gauges time series to produce gridded fields of SLA in the west coast of the US (39-49°N, 123.5-132°W) for the period 1999-2005. The results do not show significant differences compared to the gridded fields provided by AVISO-CLS in the region far from the coast, while the inclusion of the tide gauges greatly improve the results in the near-shore region. Based on this new data-set, summer interannual variability is investigated and compared to chlorophyll-a, sea surface temperature and wind stress satellite data. Results show the existence of important interannual variability in all the fields analyzed. In particular, it is shown that during summer of 2005, anomalies in the wind stress forcing are responsible of the anomalies in SST and chlorophyll-a, but do not present a significant correlation with mesoscale processes as deduced from SLA. The different fields are used to investigate whether variability in chlorophyll-a is driven by wind stress or by mesoscale processes.