

Abstract for 10<sup>th</sup> Coastal Altimetry Workshop  
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Abstract Title: Evaluating the performance of Sentinel-3 SRAL SAR Altimetry in the Coastal Zone, and developing improved retrieval methods. Early results from the SCOOP project.

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SAR (or Delay Doppler) mode altimetry is expected to be particularly advantageous in the coastal zone, due to the much higher along-track resolution and the better signal to noise ratio provided in this mode, and this has been confirmed in recent years by analysis of CryoSat-2 data.

SCOOP (SAR Altimetry Coastal & Open Ocean Performance) is a project funded under the ESA SEOM (Scientific Exploitation of Operational Missions) Programme Element, started in September 2015, to characterise the expected performance of Sentinel-3 SRAL SAR mode altimeter products, in the coastal zone and open-ocean, and then to develop and evaluate enhancements to the baseline processing scheme in terms of improvements to ocean measurements. There is also a work package to develop and evaluate an improved Wet Troposphere correction for Sentinel-3.

This presentation will provide an overview of the SCOOP project, and present results of an analysis on the expected performance of the Sentinel-3 SRAL SAR mode products in the coastal zone, before considering possible modifications to the processing scheme that could enhance performance in the coastal zone. These potential enhancements include modifications both in the Delay Doppler Processing stage (L1A to L1B) and in the development and application of new waveform re-trackers (L1B to L2) designed to optimise performance in the coastal zone.