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The SARAL/AltiKa mission was successfully launched on February 25, 2013 and provides high quality data since March 14, 2013. The AltiKa altimeter is an innovative 40Hz mono-frequency Ka-band radar, dedicated to provide accurate measurements of ocean surface topography. As SARAL/AltiKa is the first altimetry mission operating at 35.75 GHz and knowing that the future SWOT mission will use the same frequency, a careful consideration is given to the Ka-Band performance assessment with a special focus on the backscattering measurements (sensitivity to rain cells, wind speed, etc ...).

In this paper, we propose to give an overview of the instrument and processing behavior, based on the first AltiKa measurements. Various aspects are covered such as the impact of the 480 MHz bandwidth, the comparison of the different tracker modes, the spectral error budget and the analysis of the Sigma0 measurements compared to the Ku ones.

OSTS session

Instrument Processing

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