



ESA SNAP-StaMPS Integrated Processing for Sentinel-1 Persistent Scatterer Interferometry

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The European Space Agency (ESA) continues the development of appropriate tools to facilitate the Earth Observation (EO) community in utilizing the Copernicus Sentinel missions. Recent development involved the extension of the interferometric capabilities of the SentiNel Application Platform (SNAP) to enable SAR interferometric time series analysis through the Stanford Method of Persistent Scatterer (StaMPS). In the present work, we demonstrate Sentinel-1 Persistent Scatterers Interferometry (PSI) analysis through SNAP-StaMPS integrated processing. A detailed overview of the processing steps involved as well as considerations and assumptions to exploit the SNAP-StaMPS synergy are presented. We aim to support the EO community by providing guidelines for Sentinel-1 TOPS PSI processing using open source software packages. For demonstration purposes, PSI results over Mexico City (Mexico) and Rome (Italy) are shown.