



Activities of GNSS4SWEC Working Group 1: Advanced GNSS Processing Techniques

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The COST Action ES1206 (GNSS4SWEC project) addresses new exploitations of the synergy from developments in both the GNSS and meteorological communities. The Working Group 1 (Advanced GNSS processing techniques) deals with developing and assessing new methods for GNSS tropospheric monitoring and precise positioning exploiting all modern GNSS constellations, signals, products etc. The goals of the WG1 are defined in four domains 1) coordinating the development of advanced tropospheric products in support of weather forecasting (ultra-fast products, asymmetry monitoring, tomography, multi constellation processing, new products), 2) reprocessing and model assessment of consistent tropospheric products for climatology, 3) exploiting numerical weather data in precise GNSS positioning (mapping functions, a priori ZHD modelling, tropospheric gradients, tropospheric models for real-time positioning, parameter conversions), and 4) supporting transfer of knowledge, tools and data exchange for extending existing products (new ACs, new networks, etc.). Ten sub-groups were established in order to effectively coordinate co-operations in all the domains and related activities. The poster presents an overview of all activities within the WG1 and, particularly, achievements in co-operations on specific topics from which two, Benchmark and Real-time Demonstration campaigns, provides a core platform for most of common activities.