

GNSS-based densification of the ITRF velocity field through a collaborative approach

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The objective of the IAG Working Group "Integration of Dense Velocity Fields in the ITRF" is to provide a GNSS-based dense, unified and reliable velocity field globally referenced in the ITRF (International Terrestrial Reference Frame) and useful for geodynamical and geophysical interpretations. The WG is embedded in IAG Sub-Commission 1.3 "Regional Reference Frames" where it coexists with the Regional Reference Frame Sub-Commissions AFREF (Africa), APREF (Asia & Pacific), EUREF (Europe), NAREF (North America), SCAR (Antarctica), SIRGAS (Latin America & Caribbean). These IAG Regional Reference Frame sub-commissions are responsible for providing GNSS-based densified weekly solutions for their region. To obtain such a densified velocity field, the WG combined the individual weekly solutions from 7 individual contributors (AFREF, APREF, EUREF, NAREF (NGS, GSB), SIRGAS, IGS) and then stacked these weekly combined solutions in order to derive a ITRF2008 densification as well as the associated residual position time series for more than 2800 sites. Here we present the latest densification results.