

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

Juliette Legrand (1), Carine Bruyninx (1), Michael Craymer (2), John Dawson (3), Jake Griffiths (4), Ambrus Kenyeres (5), Paul Rebischung (6), Laura Sánchez (7), Alvaro Santamaría-Gómez (8), Elifuraha Saria (9), and Zuheir Altamimi (6)

(1) Royal Observatory of Belgium, Brussels, Belgium (juliette.legrand@oma.be), (2) NRCAN, Canada, (3) Geoscience Australia, (4) Naval Research Laboratory, USA, (5) FÖMI, Hungary, (6) IGN/LAREG, France, (7) DGFI, Germany, (8) University of La Rochelle, France, (9) Ardhi University, Tanzania

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.