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IUGG Secretariat GFZ German Research Centre for Geosciences Telegrafenberg A17 14473 Potsdam GERMANY

IUGG Grants Program 2022-2023 (Special Call - IYBSSD2022)

Final report

The Workshop for SAR in Geodesy took place in Espoo, Finland on 13.-14.3.2023. There were altogether 130 enrolled participants, 42 were on-site in Espoo and some 40-50 online, depending slightly on the time of the day. All on-site participants were from Europe, mostly from Nordic and Baltic countries, but in the online participants there were people from African and Asian countries, as well as European. The program of the workshop is attached on the second page.

The workshop started on Monday after lunch, there were interesting presentations sharing experiences and results from work done with active and passive SAR reflectors by German colleagues. After the coffee break a colleague from ESA presented their views on how the satellites and the SAR products are planned to evolve. There was also some discussion at the end of the day. The workshop dinner saw some lively discussions about the topic but also from general networking point-of-view. Tuesday started with the presentation about TU Delft's work in the topic and the workshop ended with common discussion on where we are now, what we would like to do in the future and what kind of opportunities does SAR technique hold for geodesy. The participants said that the workshop was very nice and timely, as the SAR usage is growing.

Invited speakers: Ramon Hanssen, TU Delft Thomas Gruber, TU Munich (own travel funding) Christoph Gisinger, DLR (own travel funding) Muriel Pinheiro, ESA (online)

Expenses covered by the IUGG grant: Travel expenses for Ramon Hanssen, TU Delft Flights 394,76 € Hotel (2 nights) 264 € Rent for the meeting room Monday 13.3. 4,5 hours 184,50 € Tuesday 14.3. 4 hours 164 € Coffee and refreshments Monday: coffee and cake (40 people) 421,60 € Tuesday: coffee and bagel (40 people) 505,60 € Total: 1934,46 € (~2085 \$)

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Workshop in SAR for Geodesy

Monday - Tuesday 13. - 14.3.2023

Room Palaver, Dipoli, Otakaari 24, Espoo, Finland

Monday 14.3.		
13:00-13:10	Nordman, Aalto, Koivula, FGI	Welcome, opening, practical things
13:10-13:40	Gruber, TU Mu- nich	SAR Positioning for Geodetic Applications
13:40-14:10	Gisinger, DLR	SAR positioning for geodetic applications revisited – Lessons learned from TerraSAR-X and Sentinel-1
14:10-14:30	Larsen, NORCE	Utilizing GNSS and CRs for InSAR Service Produc- tion & Validation: Challenges and Recommenda- tions for Nationwide Implementation
14:30-15:00		Coffee break
15:00-15:30 15:30-15:50	Pinheiro, ESA Schlaak, TU Mu- nich	Sentinel-1 status and upcoming evolutions 3D SAR Positioning Results — Experiences with Electronic Corner Reflectors
15:50-16:10	Schiller, TU Mu- nich	Initial SAR positioning results from recently installed corner reflectors in Finland and Sweden
16:10-16:30	Puwakpitiya Gedara, Lantmäteriet	Performance analysis of the passive SAR corner re- flector in Norrköping (East Sweden)
16:30-17:00	Laninatoriot	Discussion
18:30-		Dinner for on-site participants Fat Lizard, Tietotie 1, Otaniemi, Espoo
Tuesday 15.3.		
9:30-10:00	Hanssen, TU Delft	INSAR Geodesy: TU Delft experience in datum connec- tion and surface and infrastructure monitoring
10:00-10:20	Näränen, FGI	Current status of geodetic InSAR targets in Finland
10:30-11:00		Coffee break
11:00-11:45 11:45-12:00		Discussion Wrap up







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