

Program EUREF Symposium 2023

Draft version, May 22

Tuesday May 23		
13:00-17:00	Tutorial on Artificial Intelligence (AI) and Machine Learning (ML)	
	Olof Mogren, RISE Research Institute of Sweden	The technology behind modern day artificial intelligence (AI)
	Olof Mogren, RISE Research Institute of Sweden	AI for geographical analysis and environmental analysis
14:30-15:00	Coffee break	
	Anders Enmark, Lantmäteriet, Sweden	Experiences from using AI/ML for interpretation and understanding old handwritten text documents
	Adam Hedkvist, Lantmäteriet, Sweden	Some experiences from using ML for detecting buildings in areal images
	Fikri Bamahry, ROB, Belgium	Why considering ML for quality evaluation of GNSS observations and results including the challenges we faced and are still facing
Wednesday May 24		
8:30-9:00	Registration	
9:00-10:30	Opening session	Chair: Martin Lidberg
	Peter Forkman	Welcome address by the Head of Department at Space, Earth and Environment, Chalmers
	Zuheir Altamimi	Welcome address by the President of the International Association of Geodesy – IAG
	Carine Bruyninx	Welcome address by the President of the IAG Sub-Commission 1.3 – Regional Reference Frames
	Martin Lidberg	Welcome address by the Chairman of the IAG Sub-Commission 1.3a – EUREF
9:35-9:55	Wolfgang Söhne	Goals and Activities of the EUREF Governing Board
	Mark Greaves	<i>Short note on resolutions</i>
10:00-10:30	Jan Dostal, Pier-Giorgio Zaccheddu, Johannes Bouman, Anne Jørgensen	Invited Keynote talk: UN-GGCE: The New UN-Entity for Geodesy
10:30-11:00	Coffee break	
11:00	Session 1 – Systems: ETRS89, EVRS, Geoid and related models	Chairs: Zuheir Altamimi, Markku Poutanen

11:00-11:20	Verbeurgt, Jeffrey; Jørgensen, Anne; Dostal, Jan; Vanden Berghe, Ingrid	United Nations Working Group on Geodetic Reference Frames in Europe
11:20-11:40	Sacher, Martina; Schwabe, Joachim	Status report about the European Vertical Reference Frame
11:40-12:00	Schwabe, Joachim; Sacher, Martina; Liebsch, Gunter; Lidberg, Martin; Denker, Heiner; Ågren, Jonas; Alfredson, Anders; Barzaghi, Riccardo; Bilker-Koivula, Mirjam; Ellmann, Artu; Garayt, Bruno; Hellerschmied, Andreas; Kenyeres, Ambrus; Marti, Urs; Varbla, Sander	Status report for the EUREF Working Group "European Unified Height Reference"
12:00-12:20	Legrand, Juliette	Reference Frame Coordination Status Report
12:20-13:20	Lunch	
13:20-13:40	Altamimi, Zuheir	ETRF2020: a realization of the ETRS89
13:40-14:00	Nilsson, Tobias; Kempe, Tina; Lidberg, Martin	Test of global alignment of regional GNSS solutions
14:00-14:30	Introduction of Posters, and short presentation by exhibitors	Chairs: Jan Johansson, Martin Lidberg
14:30	Session 2- Networks: EPN, UELN, Densification	Chairs: Carine Bruyninx, Joaquin Zurutuza
14:30-14:45	Liwosz Tomasz, Araszkievicz Andrzej	Report of the EPN Analysis Centres Coordinator. The switch from the IGB14 to IGS20 reference frame in EPN analysis
14:45-15:05	Bruyninx, Carine; Legrand, Juliette; Fabian, Andras; Miglio, Anna; Bamahry, Fikri	Status of the EUREF Permanent Network
15:05-15:35	Coffee break	
15:35-15:50	Voelksen, Christof	EPN-Repro3: Activities of the working group on EPN reprocessing
15:50-16:05	Kenyeres, Ambrus + all Densification AC representatives (20+ persons)	EPN Densification – D2237, the last igs14-based combination
16:05-16:20	Anastasiou, Dimitrios and Papanikolaou, Xanthos and Tsakiri, Maria	DSO contribution to EUREF Densification and a dense velocity field for Greece
16:20-16:35	Jäderberg, Rickard	SWEPOS™ 30 years of CORS operation
17:00-21:45	Visit to the Onsala Space Observatory including get together reception and study tour Bus leaves from Chalmers at 17:00 and return back from Onsala at 21:00	

Thursday May 25

8:30	Session 2 cont.	
8:30-8:45	Zurutuza, Joaquin, Kenyeres, Ambrus	Combining normal equations based on IGS20 or IGB14 standards and models: impact on the cumulative time series
8:45-9:00	Pacione, Rosa	EPN Tropospheric Products
9:05	Session 3 - Techniques: GNSS, Levelling, Combination	Chairs: Martina Sacher, Rolf Dach
9:05-9:20	Kheloufi, Noureddine	New Optimisation method for Transformation parameters problem between WGS84 and Nord- Sahara Geodetic frames
9:20-9:35	Gianniou Michail, Iliopoulou Ourania, Mendonidis Evangelos, Iliodromitis Athanasios	A Comparative Performance Assessment of Galileo and GPS Satellite Clocks
9:35-9:50	Marin Francesco, Alessandro Caporali, Joaquin Zurutuza, Marco Pertile	A test of the Galileo's High Accuracy Service orbit, clock and carrier phase corrections
9:50-10:05	Kersten, Tobias; Kröger, Johannes; Schön, Steffen	Comparing GNSS receiver antenna patterns: methods and metrics
10:05-10:35	Coffee break	
10:35-10:50	Männel, Benjamin (1); Liwosz, Tomasz	An update of GFZ's contribution to EUREF
10:50-11:05	Kenyeres, Ambrus; Tóth, Sándor; Magyar Bálint; Horváth Roland; Virág Gábor	INGRIM: Modernization of the Height Reference Network using Satellite Technologies
11:05-11:20	Droscak Branislav ¹ , Papco Juraj ²	GNSS InSAR collocation in Slovakia (Building up of the National InSAR reflecting network)
11:20-11:35	Nilfouroushan, Faramarz; Ahmed Adam Gido, Nureldin; Puwakpitiya Gedara, Chrishan; <u>Olsson</u> , Per-Anders (presenter)	Active and passive radar corner reflectors co-located with permanent GNSS stations in Sweden: installation and performance
11:35-11:50	Abraha, Kibrom Ebuy; presented by Nilsson, Tobias	Monitoring and Detection of GNSS Interference Using the Swedish CORS Network SWEPOS
11:50-12:05	Pollinger, Florian et al.; presented by Bergstrand, Sten	The GeoMetre project: large-scale dimensional measurements for geodesy
12:05-13:00	Lunch	
13:00-15:30	Session 4 – National reports	Chairs: Karin Kollo, Tina Kempe
13:00-15:30	National reports	
15:30-16:00	Coffee break	

16:00-17:30	Splinter meeting: CEGRN Consortium Governing Board	Chair: Joaquin Zurutuza
19:00	Conference dinner at “Chalmerska huset”, downtown Gothenburg	
Friday May 26		
9:00	Session 5 - Applications: Earth Sciences, Geo-information	Chairs: Christof Völksen, Benjamin Männel
9:00-9:20	Haas, Rüdiger	Invited talk: The VLBI Global Observing System (VGOS),
9:20-9:35	Grinde, Gro, Skaar, Karoline and Himle, Sveinung	How do we handle geodata and services with positions in global reference frames?
9:35-9:50	Häkli, Pasi; Evers, Kristian, Jivall, Lotti; Nilsson, Tobias; Himle, Sveinung ⁴ ; Kollo, Karin; Liepiņš, Ivars; Paršeliūnas, Eimuntas; Vestøl, Olav; Lidberg, Martin	The NKG2020 transformations
9:50-10:05	Bamahry, Fikri; Legrand, Juliette; Pottiaux, Eric; Bruyninx, Carine; Fabian, Andras	Using Machine Learning Algorithms for Automated Data Cleaning of GNSS Position Time Series Based on Data Quality Indicators
10:05-10:20	Peng, Feng; Haas, Rüdiger; Elgered, Gunnar	The NITE model for ground-based GNSS-IR tropospheric error correction: theory and validation
10:20-10:35	SANCHEZ SOBRINO, Jose A.; PUENTE GARCIA, Victor; DOMINGO CENTENO, Leonor Cui	GNSS techniques for natural hazards detection and monitoring in the Iberian region
10:35-11:05	Coffee break	
11:05-12:00	Closing session	Chair: Martin Lidberg
<i>We wish you all a safe trip home and see you next year!</i>		
May 24-26		
	Poster Session	
	Steffen, Rebekka; Steffen, Holger; Kenyeres, Ambrus; Nilsson, Tobias; Lidberg, Martin	EuVeM2022: a new European GNSS velocity model
	S. Al-Shahrani, T. Al-Shafaey, S. Al-Otaibi, I. Golubinka, A.	Application Of The KSA-GEOID Model For The Validation Of KSA-DTM

	Al-Qahtani, R. Grebenitcharsky	
	Christina Lilje, Lotti Jivall, Peter Wiklund, Anders Frisk, Martin Lidberg	Exchange of antennas on SWEPOS fundamental station
	Christina Lilje, Lotti Jivall, Rickard Jäderberg, Tong Ning, Tobias Nilsson, Peter Wiklund, Anders Frisk, Tina Kempe	Automatic snow cleaning of GNSS antennas

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