IAG International Symposium on Reference Frames for Applications in Geosciences (REFAG2026),

2 – 4 March 2026

https://geodesy.science/events/munich2026/

Program

Abstracts available at

https://geodesy.science/wp-content/uploads/REFAG2026_Abstract_Book.pdf

February 2026

Venue

The REFAG2026 Symposium will be hosted at the *Landesamt für Digitalisierung, Breitband und Vermessung* (LDBV) (www.ldbv.bayern.de/) located at

Alexandrastraße 4, 80538 Munich

Open hours: 08:00 – 18:00

The conference venue is in a very central location, about a 10-minute walk from Munich's central square (Marienplatz). It is also possible to reach it by metro (U-Bahn, U4 and U5 to Lehel station) or tram (Line 16 to Lehel station). It is best to reach the venue by public transport because traffic is usually very heavy, and parking fees can be expensive. See the latest ticket fare information at https://www.mvv-muenchen.de/en/tickets-and-fares/tickets-daytickets/index.html.

Instructions for presenters

Oral presentations
- Presentations should be uploaded to the computer in the presentation room (Soldner Raum) at latest during the break before the corresponding session.
- Presentations in Power Point format are preferred (.pptx, .ppt)
- Format slides: 16:9
- Name of the file: "ID_Last_Name_Presenter", e.g. M1_o1_Angermann.pptx
- Oral presentations are allotted 12 minutes, plus additional three minutes for questions.

Poster presentations
- All posters may be displayed for the duration of the three-day symposium.
- Authors are requested to be present at their posters during the poster sessions on Monday 2nd March and Tuesday 3rd March, from 16:30 to 17:30.
- Coffee and lunch breaks will take place in the poster room, providing an opportunity to visit the posters during these breaks.
- The allowed format for posters is A0 portrait, width 840 mm x length 1188 mm.
- Posters must be removed by 17:30 on Wednesday 4th March at the latest.

Symposium proceedings
- Authors are invited to publish their paper in the REFAG2026 Proceedings.
- These proceedings will be published in the Symposia Series of the International Association of Geodesy by Springer (https://link.springer.com/series/1345).
- The papers are peer-reviewed, published as open access and available online shortly after acceptance, free of charge to the authors.
- The submission deadline is 30th April 2026.
- The maximum length is 8 pages.
- Templates, instructions for authors, and further information can be found at https://geodesy.science/iag/resources/springer/#iag-symposia-series.

Science team

- **Urs Hugentobler**, President IAG Commission 1: Reference Frames, Satellite Geodesy, TUM School of Engineering and Design, Technische Universität München, Munich, Germany
- **Xavier Collilieux**, Vice-President IAG Commission 1: Reference Frames, Institut de physique du globe de Paris, CNRS, IGN, Université de Paris Cité, Paris, France
- **Krzysztof Sośnica**, President Sub-Commission 1.1: Coordination of Space Techniques, Institute of Geodesy and Geoinformatics, Faculty of Environmental Engineering and Geodesy, Wrocław University of Environmental and Life Sciences, Wrocław, Poland
- **Mathis Bloßfeld**, President Sub-Commission 1.2: Global Reference Frames, Deutsches Geodätisches Forschungsinstitut (DGFI-TUM), TUM School of Engineering and Design, Technische Universität München, Munich, Germany
- **Fernand Bale**, President Sub-Commission 1.3: Regional Reference Frames, BNETD - Bureau National d'Etudes Techniques et de Developpement, Abidjan, Côte d'Ivoire
- **Maria Karbon**, President Sub-Commission 1.4: Interaction of Celestial and Terrestrial Reference Frames Department of Applied Mathematics, University of Alicante, Alicante, Spain
- **Laura Sánchez**, President Global Geodetic Observing System (GGOS), Deutsches Geodätisches Forschungsinstitut (DGFI-TUM), TUM School of Engineering and Design, Technische Universität München, Munich, Germany
- **Robert Heinkelmann**, Analysis Coordinator of the International Earth Rotation and Reference Systems Service (IERS), Helmholtz Centre Potsdam GFZ German Research Centre for Geosciences, Potsdam, Germany

Local Organizing Committee

- **Mathis Bloßfeld**, Deutsches Geodätisches Forschungsinstitut (DGFI-TUM), TUM School of Engineering and Design, Technische Universität München, Munich, Germany
- **Urs Hugentobler**, Satellite Geodesy, TUM School of Engineering and Design, Technische Universität München, Munich, Germany
- **Laura Sánchez**, Deutsches Geodätisches Forschungsinstitut (DGFI-TUM), TUM School of Engineering and Design, Technische Universität München, Munich, Germany
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- **Chanye Fu,** Satellite Geodesy, TUM School of Engineering and Design, Technische Universität München, Munich, Germany
- **Felix L. Müller**, Deutsches Geodätisches Forschungsinstitut (DGFI-TUM), TUM School of Engineering and Design, Technische Universität München, Munich, Germany

Program at glance

	Monday 2nd March 2026	Tuesday 3rd March 2026	Wednesday 4th March 2026
08:00-08:30	Registration		
08:30-08:45		T1: Earth Orientation Parameters X. Collilieux, N. Stamatakos	W1: Multi-technique Combinations and Co-location in Space K. Sośnica, L. Klemm
08:45-09:00			
09:00-09:15	Opening		
09:15-09:30			
09:30-09:45	Reference Frame Evolution and Deployment: Current Needs and Developments T. Herring		
09:45-10:00			
10:00-10:30	Coffee break		
10:30-10:45	M1: Applications in Earth Sciences and Infrastructure L. Sánchez, R. Gross	T2: Terrestrial Reference Frames and Combination X. Collilieux, L. Geisser	W2: Systematic Effects in VLBI R. Heinkelmann, T. Herring
10:45-11:00			
11:00-11:15			
11:15-11:30			
11:30-11:45			
11:45-12:00			
12:00-13:00	Lunch break		Group photo on Friday
13:00-13:15	M2: Defining Lunar Space: Frames, Time Systems and Interoperability M. Karbon, M. Zhang	T3: Position Time Series and Height Reference Frames X. Collilieux, M. Seitz	W3: Systematic Effects in GNSS, POD and DORIS R. Heinkelmann, T. Herring
13:15-13:30			
13:30-13:45			
13:45-14:00			
14:00-14:15			
14:15-14:30			
14:30-15:00	Coffee break		
15:00-15:15	M3: Recent Developments in Regional Reference Frames F. Bale, Ch. Völksen	T4: Genesis and Space Ties K. Sośnica, K. Balidakis	W4: Systematic Effects in SLR and multi-technique Combination R. Heinkelmann, T. Herring
15:15-15:30			
15:30-15:45			
15:45-16:00			
16:00-16:15			
16:15-16:30			
16:30-17:30	Poster session	Poster session	Wrap up and closing

Soldner Room	Poster Room

Social events

Detailed Program: Oral Presentations

Monday 2nd March 2026

08:00-09:00		**Registration**
09:00-09:30		**Opening** *U. Hugentobler, D. Kleffel, M. Bloßfeld*
09:30-10:00		Reference Frame Evolution and Deployment: Current Needs and Developments *Thomas Herring*
10:00-10:30		Coffee break

Session M1: Applications in Earth Sciences and Infrastructure

Conveners: Laura Sánchez, Richard Gross

10:30-10:45	**M1 - o1**	Essential Geodetic Variables (EGVs) – Status and the way forward *Detlef Angermann; Thomas Gruber; Laura Sánchez*
10:45-11:00	**M1 - o2**	Towards a mature Global Geodesy Supply Chain *Liubov Poshyvailo-Strube; Ben Wortley; Nicholas James Brown*
11:00-11:15	**M1 - o3**	From Reference Frames to Technological Benefits: Applications through the refined reference frames in the ESA's E-NAFF Project *Iwona Kudłacik[ECS]; Krzysztof Sośnica; Grzegorz Bury; Tomasz Hadaś; Jan Kapłon; Kamil Kazmierski; Tomasz Kur; Dariusz Strugarek; Anna Szczypka; Radosław Zajdel; Marnix Meersman; Erik Schönemann*
11:15-11:30	**M1 - o4**	Climatic Impacts on Earth Orientation Parameters *Jolanta Nastula; Lone Stumpe; Laura Jensen; Justyna Śliwińska-Bronowicz; Robert Dill; Henryk Dobslaw; Małgorzata Wińska; Aleksander Partyka*

11:30-11:45	**M1 - o5**	Surface loading deformation in GNSS: testing the hydrological model OS LISFLOOD

Benjamin Männel[ECS]; Laura Jensen; Henryk Dobslaw; Roland Hohensinn

11:45-12:00	**M1 - o6**	Deformation Modelling of the receiving unit of a VLBI radio telescope

Cornelia Eschelbach; Michael Lösler; Lucia McCallum; Arthur Zhou; Ansgar Greiwe

12:00-13:00		Lunch break

Session M2: Defining Lunar Space: Frames, Time Systems and Interoperability

Conveners: Maria Karbon, Mingyue Zhang

13:00-13:15	**M2 - o1**	From Roundtable to Roadmap: Progress on Lunar Standards and Interoperability

Susan Stewart; Agnes Fienga

13:15-13:30	**M2 - o2**	Propositions of recommendations on Lunar reference systems and frames by the IAG WG 1.3 and synergy with IAU

Agnes Fienga; Krzysztof Sośnica ; Nicolas Rambaux; Dmitry Pavlov; Sergei Klioner; Susan G. Stewart; Erwan Mazarico; Maria Karbon; Jurgen Mueller; Pascale Defraigne; Robert Heinkelmann; Trevor W. Gardner; Javier Ventura-Traveset; Richard Swinden; Cheryl J. Gramling; Luciano Iess; JS Ping; Masaya Murata; Suzana Okamoto; Stephen M. Merkowitz; Vishnu Viswanathan; Nicholas R Makley; Pierre Waller

13:30-13:45	**M2 - o3**	International Lunar Reference Frame (ILRF) – the first combined reference frame realization for the Moon

Krzysztof Sośnica; Agnes Fienga; Dmitry Pavlov; Nicolas Rambaux; Radosław Zajdel

13:45-14:00	**M2 - o4**	Computing Ephemerides in a Lunar Reference Frame

Meredith Elrod; Susan Stewart

14:00-14:15	**M2 - o5**	Lunar Laser Ranging for the Space-Time Reference Systems on Earth and Moon

Mingyue Zhang[ECS]; Jürgen Müller

14:15-14:30	**M2 - o6**	Centimeter-Accurate One-Way Laser Ranging Anywhere in the Solar System — Case Studies of Lunar and Martian Landings

Drazen Svehla; Markus Rothacher; Ivan Prochazka; Josef Blažej; Ronald Holzwarth; Simone Dell'Agnello

14:30-15:00		Coffee break

Session M3: Recent Developments in Regional Reference Frames

Conveners: Fernand Bale, Christof Völksen

15:00-15:15	**M3 - o1**	EUREF Study Group on alternatives to ETRS89. Status of work

Xavier Collilieux; Zuheir Altamimi; Dimitrios Ampatzidis; Andrzej Araszkiewicz; Karoline Arnfinnsdatter Skaar; Esther Azcue Infanzón; Carine Bruyninx; Alessandro Caporali; Rolf Dach; Chris Danezis; Michail Gianniou; Ambrus Kenyeres; Karine Kollo; Christopher Kotsakis; Pasi Häkli; Lennard Huisman; Juliette Legrand; Gunter Liebsch; Martin Lidberg; Ivars Liepiņš; Tomasz Liwosz; Benjamin Männel; Rosa Pacione; Markku Poutanen; Lars Prange; Martina Sacher; Joachim Schwabe; Wolfgang Söhne; João Agria Torres; Jeffrey Verbeurgt; Brice Virly; Christof Völksen; Anastasiia Walenta; Lin Wang; Joachim Zurutuza

15:15-15:30	**M3 - o2**	The EUREF Reference Frame Solution based on EPN-repro 3: Methodology, Results, and Quality Assessment

Juliette Legrand; Carine Bruyninx; Fikri Bamahry

15:30-15:45	**M3 - o3**	NGL-NA25 – A New GPS Position Time-Series Solution for North America

Corné Kreemer; Geoffrey Blewitt; William C. Hammond; Donald F. Argus; Kevin M. Gaastra

15:45-16:00	**M3 - o4**	Evaluating the impact of a Reference Frame update in Spain: Considerations for transitioning beyond ETRF2000

Esther Azcue Infanzón[ECS]; José Antonio Sánchez-Sobrino; Modesto Blanco; Miguel González-Hidalgo; David Gómez; Joel Grau Bellet; Joaquín Zurutuza; Santiago Belda; Marta Folgueira

16:00-16:15	**M3 - o5**	ADELA Project: Products, tools, and operational guidelines for the use of kinematic reference frames in the SIRGAS region

José Antonio Tarrío Mosquera; Marcelo Caverlotti

16:15-16:30	**M3 - o6**	The 2023 Turkish Earthquakes: Impact on Israel's CORS Network

Gilad Even-Tzur

16:30-17:30		Poster session

Tuesday 3rd March 2026

Session T1: Earth Orientation Parameters

Conveners: Xavier Collilieux, Nicholas Stamatakos

08:30-08:45	**T1 - o1**	A Coming Wave of New Astronomical Standards: Adoption and Impact

Andrew Kopf

| 08:45-09:00 | **T1 - o2** | How to bring precession and nutation models closer to CPO observations in the short term |
| | | *Jose M. Ferrandiz; Alberto Escapa; Maria Karbon; Santiago Belda* |

| 09:00-09:15 | **T1 - o3** | Temporal Evolution of the Free Core Nutation Quality Factor from VLBI Celestial Pole Offsets |
| | | *Santiago Belda; Maria Karbon; José M. Ferrándiz; Lucía D. Del Nido Herranz; Alberto Escapa; Clara Pérez; Esther Azcue Infanzón* |

| 09:15-09:30 | **T1 - o4** | Validation of New Earth Rotation Models for the IERS Conventions Update |
| | | *Maria Karbon; on behalf of JWG IAG 3.1* |

| 09:30-09:45 | **T1 - o5** | Estimation of the Earth angular rotation velocity with geodetic VLBI |
| | | *Oleg Titov* |

| 09:45-10:00 | **T1 - o6** | Short-term Earth Orientation Parameter Prediction: Present-Day Accuracy and *Future Directions* |
| | | *Henryk Dobslaw; Justyna Śliwińska-Bronowicz; Jolanta Nastula; Maciej Michalczak; Marcin Ligas; Malgorzata Winska; Robert Dill* |

| 10:00-10:30 | | Coffee Break |

Session T2: Terrestrial Reference Frames and Combination

Conveners: Xavier Collilieux, Linda Geisser

| 10:30-10:45 | **T2 - o1** | The ILRS ASC operational product portfolio – status and plans |
| | | *Mathis Bloßfeld; Cinzia Luceri; David Sarrocco; Antonio Basoni; Frank G. Lemoine; Keith Evans* |

| 10:45-11:00 | **T2 - o2** | Status of ITRF2020 Updates and Future Outlook |
| | | *Zuheir Altamimi; Paul Rebischung; Xavier Collilieux; Laurent Métivier; Julien Barnéoud; Kristel Chanard; Maylis De la Serve* |

| 11:00-11:15 | **T2 - o3** | DTRF2020 and its updates |
| | | *Manuela Seitz; Mathis Bloßfeld; Julian Zeitlhöfler; Detlef Angermann; Matthias Reber; Jacob Klug* |

| 11:15-11:30 | **T2 - o4** | Consistent estimation of EOP and TRF on a weekly inter-technique combined datum |
| | | *Lizhen Lian; Simeng Zhang; Chengli Huang* |

| 11:30-11:45 | **T2 - o5** | Impact of common clock and common target on intra- and inter-technique combination for global Terrestrial Reference Frames (TRF) |
| | | *Anton Reinhold[ECS]; Susanne Glaser; Jacob Klug; Manuela Seitz* |

| 11:45-12:00 | **T2 - o6** | Impacts of Time-correlated Noise Modelling on GNSS Terrestrial Reference Frame via Square Root Information Filter |
| | | *Na Wei; Yanlin Li; Guo Chen; Chuang Shi; Jingnan Liu* |

| 12:00-13:00 | | Lunch Break |

Session T3: Position Time Series and Height Reference Frames

Conveners: Xavier Collilieux, Manuela Seitz

13:00-13:15	**T3 - o1**	Geocenter estimates from 10 years of multi-mission LEO GNSS tracking *Peter Steigenberger; Bingbing Duan; Oliver Montenbruck*
13:15-13:30	**T3 - o2**	What do we Need from Future Geophysical Loading Models, and How Can They be Incorporated into Future Global Reference Frame Realizations? *Jeff Freymueller*
13:30-13:45	**T3 - o3**	Estimation of a Continuous Spatio-Temporal Vertical Displacement Model From GNSS Position Time Series *Jan Martin Brockmann; Lukas Jendges; Susanne Glaser*
13:45-14:00	**T3 - o4**	A Hybrid Automated Method for Discontinuity Detection in Geodetic Time Series toward Improved TRF Realization *Simeng Zhang[ECS]; Lizhen Lian; Chengli Huang*
14:00-14:15	**T3 - o5**	Symmetric least squares solution for spatial coordinate transformations with small rotation angles *Rüdiger Lehmann; Michael Lösler[ECS]*
14:15-14:30	**T3 - o6**	Clock Networks for Realising a Global Height Reference System *Jürgen Müller; Asha Vincent*
14:30-15:00		Coffee Break

Session T4: Genesis and Space Ties

Conveners: Krzysztof Sośnica, Kyriakos Balidakis

15:00-15:15	**T4 - o1**	ESA combined processing for Genesis *Jean-Christophe Berton; Ivan Sermanoukian; Francesco Gini; Tim Springer; Michiel Otten; Florian Dilssner; Volker Mayer; Birgit Traiser; Sara Bruni; Erik Schoenemann; Frank Zimmermann; Sara Gidlund*
15:15-15:30	**T4 - o2**	Orbit Combination at Normal Equation Level *Urs Hugentobler; Mathis Bloßfeld; Bingbing Duan; Kyriakos Balidakis; Daniela Thaller; Helene Wolf; Johannes Böhm*
15:30-15:45	**T4 - o3**	Genesis contribution to SLR-based geodetic parameters *Tomasz Kur[ECS]; Joanna Najder; Krzysztof Sośnica*
15:45-16:00	**T4 - o4**	Combination of GENESIS observations with the other Earth's Laser Ranged satellites for Optimal Estimation of Geocenter *Francesco Vespe*

| 16:00-16:15 | **T4 - o5** | Preparing for VLBI with ESA's Genesis satellite |
| | | *Rüdiger Haas* |

| 16:15-16:30 | **T4 - o6** | Potential of VLBI for Orbital and Solar Radiation Pressure Parameter Estimation |
| | | *Helene Wolf*[ECS]*; Urs Hugentobler; Johannes Böhm* |

| 16:30-17:30 | | Poster session |

Wednesday 4th March 2026

Session W1: Multi-technique Combinations and Co-location in Space

Conveners: Krzysztof Sośnica, Lisa Klemm

| 08:30-08:45 | **W1 - o1** | On the Combination of LAGEOS and Sentinel-6A in Preparation for Exploiting the Genesis Mission |
| | | *Kyriakos Balidakis*[ECS]*; Luca Weinem; Claudia Flohrer; Daniela Thaller; Alexander Kehm; Daniel König; Ulrich Meyer; Daniel Arnold; Linda Geisser* |

| 08:45-09:00 | **W1 - o2** | On the extension of geodetic parameter determination from SLR to spherical satellites by GNSS and SLR observations to non-spherical LEOs |
| | | *Martin Lasser*[ECS]*; Linda Geisser; Ulrich Meyer; Daniel Arnold; Luca Weinem; Daniela Thaller; Rolf Dach; Adrian Jäggi* |

| 09:00-09:15 | **W1 - o3** | Estimation of LEO antenna phase center offsets and variations towards future LEO/GNSS integrated processing |
| | | *Longjiang Tang; Benjamin Männel; Jungang Wang; Jens Wickert* |

| 09:15-09:30 | **W1 - o4** | Potential of GPS-SLR space ties onboard LEO satellites for global geodetic parameter determination |
| | | *Bo Li*[ECS]*; Shiwei Guo; Jingzhu Zhao; Chuang Shi; Lei Fan*[ECS] |

| 09:30-09:45 | **W1 - o5** | Antenna calibration error propagation in single- and multi-technique TRF solutions |
| | | *Hanane Ait-Lakbir*[ECS]*; Miltiadis Chatzinikos; Pacome Delva; Jean-Charles Marty; Arnaud Pollet* |

| 09:45-10:00 | **W1 -o6** | FocusPOD: A POD and Geodesy SW Package |
| | | *Jaime Fernández Sánchez; Miguel Ángel Muñoz; Javier Berzosa; Marc Fernández; Luning Bao* |

| 10:00-10:30 | | Coffee Break |

Session W2: Systematic Effects in VLBI

Conveners: Robert Heinkelmann, Thomas Herring

| 10:30-10:45 | **W2 - o1** | Assessing the frame ties between VLBI observations to quasars and Genesis |
| | | *Lisa Kern*[ECS]*; Helene Wolf; Johannes Böhm* |

| 10:45-11:00 | **W2 - o2** | Systematic errors in geodetic VLBI observations |
| | | *Ming Hui Xu* |

| 11:00-11:15 | **W2 - o3** | Assessment of performance of first VGOS operational sessions scheduled with source-centric approach |
| | | *Hana Krasna; Matthias Schartner; Patrick Charlot; Christopher S. Jacobs* |

| 11:15-11:30 | **W2 - o4** | Developments at the BKG/DGFI-TUM IVS Combination Centre within the framework of the IVS Contribution to ITRF2020-u2025 |
| | | *Alexander Kehm*[ECS]*; Sabine Bachmann; Shrishail Raut; Mathis Bloßfeld; Manuela Seitz; Kyriakos Balidakis; Lisa Klemm; Sandra Schneider-Leck; Daniela Thaller* |

| 11:30-11:45 | **W2 - o5** | A New Look at the Parallax Effect |
| | | *Angelina Osetrova; Oleg Titov* |

| 11:45-12:00 | **W2 - o6** | Impact of geophysical modelling on reference frames estimated from VLBI |
| | | *Tobias Nilsson* |

| 12:00-12:05 | | **Group Photo** |

| 12:00-13:00 | | **Lunch Break** |

Session W3: Systematic Effects in GNSS, POD and DORIS

Conveners: Robert Heinkelmann, Thomas Herring

| 13:00-13:15 | **W3 - o1** | Comparison of ITRF2020_u2024 GNSS residuals displacements with environmental loading models |
| | | *Jean-Paul Boy; Paul Rebischung; Zuheir Altamimi* |

| 13:15-13:30 | **W3 - o2** | Do the GPS Repositioning Events Degrade the Stability of GNSS Scale Contribution? |
| | | *Aiswarya Melathakathoottu Gopalakrishnan*[ECS]*; Rolf Dach; Adrian Jäggi* |

| 13:30-13:45 | **W3 - o3** | Satellite-/block-/plane- and constellation-specific GNSS LOD biases |
| | | *Florian Seitz; Mathis Bloßfeld; Bingbing Duan; Urs Hugentobler; Jacob Klug* |

13:45-14:00	**W3 - o4**	Improved Attitude Modeling for GPS III Satellites in the Eclipse Season
		Bingbing Duan[ECS]*; Oliver Montenbruck; Peter Steigenberger; Urs Hugentobler*
14:00-14:15	**W3 - o5**	Analysis of different observation-specific signal bias products for ambiguity fixing in precise orbit determination of the Copernicus Sentinel satellites
		Heike Peter; Carlos Fernández; Tim Springer; Jaime Fernández
14:15-14:30	**W3 - o6**	Expected improvements of the DORIS contribution to the next ITRF realization
		Guilhem Moreaux; Frank Lemoine; Hugues Capdeville; Petr Štěpánek; Michiel Otten; Samuel Nahmani; Arnaud Pollet; Patrick Schreiner
14:30-15:00		**Coffee Break**

Session W4: Systematic Effects in SLR and multi-technique Combination

Conveners: Robert Heinkelmann, Thomas Herring

15:00-15:15	**W4 - o1**	The impact of reference frame realization on the determination of Earth's gravity field parameters from SLR
		Filip Gałdyn[ECS]*; Radosław Zajdel; Krzysztof Sośnica*
15:15-15:30	**W4 - o2**	Using the VMF3o Data to detect and correct Barometric errors in ILRS Stations
		Van Husson; Christopher Szwec; Austin Gerrety
15:30-15:45	**W4 - o3**	Assessment of Different ITRF Realizations Using Satellite Laser Ranging
		Linda Geisser[ECS]*; Andreja Susnik; Rolf Dach; Daniel Arnold; Adrian Jäggi*
15:45-16:00	**W4 - o4**	Assessing the Long-Term Stability of the Recent ITRF2020 Solutions
		Edgar Tamaryan[ECS]*; Rolf Dach; Adrian Jäggi*
16:00-16:15	**W4 - o5**	Preliminary analysis of K-band VLBI sessions for the IVS contribution to ITRF2020-u2025 – moved to oral presentation
		Shrishail Raut[ECS]*; Alexander Kehm; Sabine Bachmann; Kyriakos Balidakis; Lisa Klemm; Sandra Schneider-Leck; Daniela Thaller*
16:15-16:30	**W4 - o6**	Benchmarks for Assessment of Different Terrestrial Reference Frame Realizations: Insights from the IAG-IERS Joint Working Group 1.2.4
		Sergei Rudenko; Guilhem Moreaux; Andreja Susnik; Mathis Bloßfeld; Manuela Seitz; Dimitrios Ampatzidis; Daniella Thaller; Lisa Klemm; David Sarrocco; Susanne Glaser; Anton Reinhold
16:30-17:30		**Wrap up and Closing**

Detailed Program: Poster Presentations

Session M1: Applications in Earth Sciences and Infrastructure
Conveners: Laura Sánchez, Richard Gross

M1 - p1 Contribution of Geodesy to Earth System monitoring: The role of the Global Geodetic Observing System GGOS

Laura Sánchez; Anna Riddell; Jose C. Rodriguez; Detlef Angermann; Martin Sehnal; Martin Lidberg; Thomas Gruber; Benedikt Soja; Michael Schmidt; Tim Melbourne; Richard Gross; Jose Manuel Ferrandiz; George Vergos; Claudia Tocho

M1 - p2 A Portal for Monitoring GNSS Data Quality in the Distributed EPOS-GNSS E-Infrastructure

Fikri Bamahry; Juliette Legrand; Carine Bruyninx; Andras Fabian; Eric Pottiaux

M1 - p3 The M^{3}G Service: Managing GNSS Metadata to Support Geodetic Reference Frames in Europe

Andras Fabian; Carine Bruyninx; Anna Miglio; Juliette Legrand

M1 - p4 Isolating the common mode error from the European GPS displacements

Anna Klos[ECS]; Janusz Bogusz

M1 - p5 Assessing the evolution of position time series derived from satellite Doppler measurements

Janusz Bogusz; Anna Klos; Guilhem Moreaux; Artur Lenczuk

M1 - p6 Review of IERS Conventions Chapter 1 for Numerical Standards and IERS Conventional Values

Dennis McCarthy; Detlef Angermann; Nick Stamatakos

Session M3: Recent Developments in Regional Reference Frames
Conveners: Fernand Bale, Christof Völksen

M3 - p1 Germany-wide GNSS measurement campaign 2021. Introduction of the new implementation of the official spatial reference system ETRS89/DREF91(R2025)

Tetyana Romanyuk; Ole Roggenbuck; Axel Ruelke; Bernd Krickel; Andreas Bruenner; Ralf Daebel; Hans-Georg Dick; Barbara Goerres; Bjoern Mehlitz; Werner Pape; André Sieland; Wolfgang Soehne; Laura Vassmer; Lin Wang

M3 - p2 Swiss Terrestrial Reference Frame CHTRF2022

Lars Prange; Daniel Ineichen; Simon Lutz; Stefan Schaer; Arturo Villiger

M3 - p3 Updating Canada's 3D GNSS-derived velocity field and deformation model

Karen M. Simon; Jason Bond; Mohammad Ali Goudarzi; Michael Craymer

M3 - p4 EUREF and 35 years with the ETRS89

Martin Lidberg; Wolfgang Söhne; Karin Kollo; Carine Bruyninx; Alessandro Caporali; Rolf Dach; Lennard Huisman; Juliette Legrand; Tomasz Liwosz; Christof Voelksen; Zuheir Altamimi; Markku Poutanen; Ambrus Kenyeres; Rosa Pacione; Joaquin

Zurutusa; Benjamin Männel; Joachim Schwabe; Andrzej Araszkeiewicz; Xavier Collileux; Tobias Bauer

M3 - p5 DrukRef23: Establishing an ITRF-Aligned Reference Frame for Bhutan in the Himalayan Deformation Zone

Rui Fernandes; Chokila Chokila; Gonçalo Henriques; Fernando Geraldes; Gyeltshen Jamphel; Dorji Pema; Pedro Almeida

M3 - p6 Impact of the changes of absolute individual calibration models on the regional GNSS Networks: a comparative case study with a permanent German Network

Lin Wang; Sebastian Knappe; Tetyana Romanyuk; Axel Rülke; Gunter Liebsch; Eric Buchta; Hans-Georg Dick; Irene Feldmeth; Uwe Hensel; Huishu Li; Falko John; Christian Rentsch; Ole Roggenbuck; Wolfgang Söhne

M3 - p7 The EPN-Repro3 Campaign: Homogeneous Reprocessing of GNSS Data Since 1996 for an Improved Regional Reference Realisation in Europe

Christof Völksen; Tomasz Liwosz; Juliette Legrand; Martin Lidberg; Andrzej Araszkiewicz; Carine Bruyninx; Miguel Gonzales Hidalgo; Martin Imrišek; Tina Kempe; Benjamin Männel; Rosa Pacione; Juraj Papco; Lin Wang; Sandor Tóth; Joaquín Zurutuza

Session T1: Earth Orientation Parameters

Conveners: Xavier Collilieux, Nicholas Stamatakos

T1 – p1 Reconstruction of the instantaneous Earth rotation vector

Christian Bizouard; Oleg Titov

Session T2: Terrestrial Reference Frames and Combination

Conveners: Xavier Collilieux, Linda Geisser

T2 - p2 Novel approach for the combination of GNSS and VLBI clock parameters

Jacob Klug[ECS]; Manuela Seitz; Anton Reinhold; Susanne Glaser; Jari Widczisk; Benjamin Männel

T2 – p3 Multi-technique geocenter motion combination for consistent reference frame realizations

Adrian Nowak[ECS]; Tomasz Kur; Radosław Zajdel; Krzysztof Sośnica

Session T3: Position Time Series and Height Reference Frames

Conveners: Xavier Collilieux, Manuela Seitz

T3 - p1 Statistical significance of non-tidal loading corrections on GNSS station positions

Lukas Jendges[ECS]; Lara Oppitz; Jan Martin Brockmann; Susanne Glaser

T3 – p2 Geodetic Observations and Geopotential Determination for BEV's Optical Clock

Franz Blauensteiner; Hubert Butta; Anna Eigner; Jürgen Fredriksson; Martin Haslinger; Andreas Hellerschmied; Thomas Lercher; Tristan Lielacher; David Mayer; Sviatoslav Pavlov; Anastasiia Walenta; Ernst Zahn

Session T4: Genesis and Space Ties

Conveners: Krzysztof Sośnica, Kyriakos Balidakis

T4 - p1   Precise Orbit Determination with Satellite VLBI

Jungang Wang; Kyriakos Balidakis; Robert Heinkelmann; Maorong Ge; Harald Schuh

T4 - p2   SLR simulations for improved geodetic parameters in light of the Genesis mission

Eri Huntington; Susanne Glaser; Jan Martin Brockmann; Adrian Jäggi

T4 - p3   Improving GNSS-derived geocenter motion using SLR observations

Grzegorz Bury[ECS]*; Krzysztof Sośnica; Radosław Zajdel*

T4 - p4   VLBI satellite scheduling with VieSched++

Matthias Schartner; Benedikt Soja

T4 - p5   Three Decades of DORIS Zenith Tropospheric Delay: A Global, Homogenized Comparison CNES/CLS IDS vs IGS Time-Series (1993–2024) using the GINS software

Vikash Kumar[ECS]*; Alexandre Couhert; Hugues Cadeville; Adrien Mezerette; Petr Stepanek; Nagarajan Balasubramanian; Onkar Dikshit; Alvaro Santamaria*

T4 - p6   Progress on DORIS Clock Correction Strategies from the IDS Working Group

Adrien Mezerette; Hugues Capdeville; Théo Gravalon; Jean-Michel Lemoine; John Moyard; Flavien Mercier; Alexandre Couhert; Guilhem Moreaux; Patrick Schreiner; Anton Reinhold; Mara Guaini; Barath Gunasekaran; Urs Hugentobler; Carlos Fernández Martín

T4 - p7   Assessing the Potential of Co-location in Space for Global Reference Frame Realisation Using End-to-End Simulations

Patrick Schreiner[ECS]*; Susanne Glaser; Rolf König; Karl Hans Neumayer; Frank Flechtner; Harald Schuh*

T4 - p8   Multi-Technique POD Solution for Jason-3 developed at DGFI-TUM

Miriam Baumgartner[ECS]*; Julian Zeitlhöfler; Mathis Bloßfeld*

T4 - p9   GENESIS-D: a geodetic project from German organizations to support ESA's Genesis mission

Robert Heinkelmann; Harald Schuh; Daniela Thaller; Mathis Bloßfeld; Susanne Glaser; Patrick Schreiner; Claudia Flohrer; Manuela Seitz; Benjamin Männel; Frank Flechtner; Soobin Jeon; Kyriakos Balidakis; Luca Weinem; Yertay Yeskaliyev; Miriam Baumgartner; Julian Zeitlhöfler; Florian Seitz

Session W4: Systematic Effects in SLR and multi-technique Combination

Conveners: Robert Heinkelmann, Thomas Herring

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Andreja Susnik; Mathis Bloßfeld; Graham Appleby; Matthew Wilkinson

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Magdalena Kuzmicz-Cieslak; Alexandre Belli; Frank Lemoine; Keith Evans; Van Husson

Session W3: Systematic Effects in GNSS, POD and DORIS

Conveners: Robert Heinkelmann, Thomas Herring

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Arnaud Pollet; Samuel Nahmani; Nino Giron; Gabriel Pires-Prata

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Johannes Kröger[ECS]; Amr Fawzy; Tobias Kersten; Steffen Schön

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Olga Bjelotomić Oršulić[ECS]; Josip Alpeza; Sanja Šamanović; Danko Markovinović