

# Preface

This volume is the proceedings of the tenth General Meeting (GM2018) of the International VLBI Service for Geodesy and Astrometry (IVS), held in Longyearbyen, Svalbard, Norway, June 3–8, 2018.



**Fig. 1** Banner of the tenth IVS General Meeting.

The keynote of the tenth IVS General Meeting was the contribution of the VLBI Global Observing System (VGOS) to the Global Geodetic Observing System (GGOS) in its endeavor to render sustainable development possible under the theme “Global Geodesy and the Role of VGOS – Fundamental to Sustainable Development.” The United Nations recognized the importance of geospatial information to address global challenges with creating a UN-GGIM Subcommittee on Geodesy and following through with a roadmap to implement a Global Geodetic Reference Frame (GGRF). The space-geodetic techniques of VLBI, GPS, SLR, and DORIS will be fundamental for an accurate, accessible and sustainable GGRF to support science and society.

The tenth General Meeting was held at the culture house (“Kulturhuset”) in Longyearbyen, Svalbard, Norway and was hosted by the Norwegian Mapping Authority (NMA). The goal of the meeting was to provide an interesting and informative program for a wide

cross-section of IVS members, including station operators, program managers, and analysts. The Opening included a 30-minute video by a Norwegian documentary filmmaker about the importance of global geodesy for the world as well as a keynote speech about the UN-GGIM initiative on the Global Geodetic Reference Frame by IAG Vice-President Zuheir Altamimi.

This volume contains the following:

- **The papers presented at the meeting.** There are five major sections of this volume, each corresponding to a meeting session. Poster and oral papers are mixed. The five sessions cover the following topics:

1. Building the VGOS Network
2. VGOS Technique and Observation
3. Legacy S/X and Mixed Legacy/VGOS Operations
4. VLBI Core Products and Their Improvements
5. Extending the Scope of VLBI Usage/Applications

This volume includes 59 papers. All papers of this volume were edited by the editors for usage of the English language, form, and minor content-related issues.

- **An author index.**

The contents of this volume also appear on the IVS Web site at

<https://ivscc.gsfc.nasa.gov/publications/gm2018>

Slightly more than 100 registered participants from around the world attended the meeting. In the five sessions of the meeting, the participants gave 96 presentations; 62 of these were talks, and 34 were poster pre-



**Fig. 2** Participants of the tenth IVS General Meeting at the bust of Roald Amundsen in the center of Ny-Ålesund.

sentations. The overall quality of the presentations was very high—a clear testament to the usefulness of the General Meeting as a knowledge exchange for all matters VLBI. While the attendance level was not as high as with the previous few GMs, the turnout can nonetheless be considered excellent given the remoteness of the location and the associated relatively high travel costs.

The August 2018 issue of the IVS Newsletter has a feature article about the meeting. The Newsletter is available at

<https://ivscc.gsfc.nasa.gov/newsletter/issue51.pdf>

The GM included the inauguration event of the new Earth Observatory in Ny-Ålesund. This necessitated a five-hour boat ride from Longyearbyen to Ny-Ålesund and then back. The two sailings through the Arctic scenery were mostly smooth and enjoyable—clearly something many participants will remember for a long time. Special treats were a walrus colony stopover and a helicopter rescue training exercise.

The meeting was a huge success, showcasing outstanding research, productive interactions, and diverse social activities, all in a very friendly atmosphere and

unique venue. The organization was flawless, and for that, the LOC cannot be thanked enough.



**Fig. 3** IVS Chair Axel Nothnagel during the opening session.

The editors would like to thank the contributors to this volume.

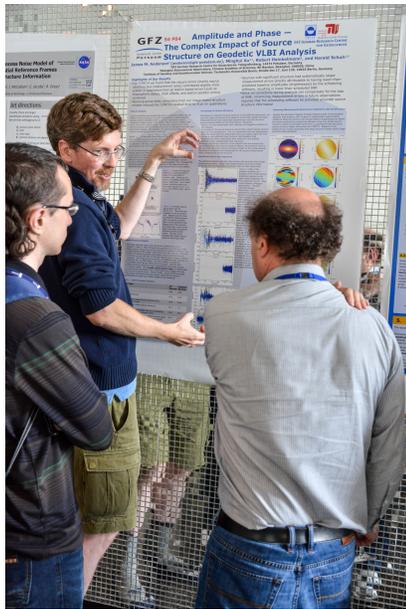
*Kyla Armstrong, Karen Baver, and Dirk Behrend*  
GM2018 Proceedings editors  
Greenbelt, MD · March 2019



**Fig. 4** Per Erik Opseth (right) introduces the members of the LOC to the meeting participants.



**Fig. 7** The twin telescopes at Ny-Ålesund during the inauguration event of Kartverket's new Earth Observatory.



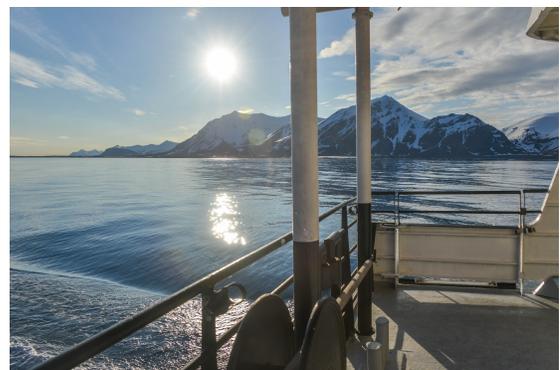
**Fig. 5** James Anderson (center) discussing source structure impacts with Alexander Plavin (left) and Patrick Charlot (right) during the poster session.



**Fig. 8** A helicopter rescue training exercise during the crossing from Longyearbyen to Ny-Ålesund.



**Fig. 6** The walrus colony at Poolepynten.



**Fig. 9** Experiencing the midnight sun on the sailing back to Longyearbyen.