Preface

This volume is the proceedings of the thirteenth General Meeting (GM2024) of the International VLBI Service for Geodesy and Astrometry (IVS), held in Tsukuba, Japan, March 4–9, 2024. The meeting was organized and hosted by the Geospatial Information Authority of Japan (GSI). The meeting was funded and organized in cooperation with the Geodetic Society of Japan and the MICE Promotion Council of Ibaraki. It was supported by the National Institute of Information and Communications Technology (NICT) and GGOS Japan.



Fig. 1 Banner of the thirteenth IVS General Meeting.

As the official inauguration date of the IVS was March 1, 1999, it was almost exactly to the day that 25 years of successful service activities could be celebrated at the same occasion. Hence, as part of the GM, a festive event was held to commemorate the silver jubilee of the IVS.

The Local Organzing Committee was thus tasked with organizing two major events in the same week as well as numerous tag-on side events (see below). We would like to thank the LOC for doing a marvellous job at that. We felt very much at home and well cared for.

In addition to the typical things you expect at a GM, there were also special activities that included a cycling tour in the Mt. Tsukuba area on the Sunday before the GM and the option to purchase T-shirts commemorating the decommissioned Kashima 34-m antenna. Kudos to the **Local Organizing Committee** consisting of

- Kensuke Kokado, GSI (Chair)
- · Haruna Furui, GSI
- Masaki Honda, GSI
- Ryuichi Ichikawa, NICT
- Masafumi Ishigaki, GSI
- Shinobu Kurihara, GSI
- Saho Matsumoto, GSI
- · Yudai Sato, GSI
- Mamoru Sekido, NICT
- Yu Takagi, GSI
- Haruka Ueshiba, GSI
- Takahiro Wakasugi, GSI
- Hiroyuki Yoshifuji, GSI

for making all that happen.



Fig. 2 Logo for the IVS 25th Anniversary created by Masafumi Ishigaki.

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Fig. 3 Participants of the thirteenth IVS General Meeting inside the Tsukuba International Congress Center.

The scientific program of the General Meeting was prepared by the Program Committee. We would like to thank the **Program Committee** consisting of

- Dirk Behrend, USA (Chair)
- · John Gipson, USA
- Rüdiger Haas, Sweden
- Masafumi Ishigaki, Japan
- Megan Johnson, USA
- Hana Krásná, Austria
- Lucia McCallum, Australia
- · Alexander Neidhardt, Germany
- Fengchun Shu, China
- Gino Tuccari, Italy
- Anastasiia Walenta, Germany
- Alet de Witt, South Africa

for their excellent work.

There were 121 registered participants from around the world that attended the meeting. In the six sessions of the meeting, the participants gave 123 presentations; 63 of these were talks and 60 were posters. Once again, the quality of the presentations was very high, underlining the usefulness of the General Meeting as a knowledge exchange for all matters VLBI.

As indicated above, there were numerous additional splinter meetings held before, during, and after the General Meeting proper and the 25th Anniversary event: an Analysis Workshop, an AOV meeting, an IVS Task Force on VLBI Scale meeting, a VTC meeting, a CRF Committee meeting, a K-band CRF meeting, a meeting of Session Advocates, a UNGGCE consultation session with IVS Directing Board members, and, eventually, an IVS Directing Board meeting.

The interested reader can find feature articles about GM2024 and the 25th Anniversary event in the April 2024 issue of the IVS Newsletter. The Newsletter is available at

https://ivscc.gsfc.nasa.gov
/newsletter/issue68.pdf

This volume follows the session structure of GM2024 and contains the following:

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- The papers presented at the meeting. There are six major sections of this volume, each corresponding to a meeting session. Poster and oral papers are mixed. The six sessions cover the following topics:
 - 1. Station Reports and Technical Developments
 - 2. Observation Operation and Monitoring
 - 3. Correlation, Fringe Fitting and Source Structure
 - 4. Scheduling, Operational Analysis and Products
 - 5. Interpretation and Comparison of VLBI Results in Geophysics, Geodesy and Astrometry
 - 6. Extending the Use of VLBI to Frame Ties, Deep Space Exploration and Other Areas

This volume includes 64 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 website at

https://ivscc.gsfc.nasa.gov/publications/gm2024

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

Dirk Behrend
IVS Coordinating Center
Greenbelt, MD in November 2024



Fig. 4 Participants enjoying the pre-meeting cycling tour around Mount Tsukuba. The double-peaked Tsukuba-san mountain is visible in the background.



Fig. 5 Calligraphy perfomance during the icebreaker reception.



Fig. 6 Oral presentation in the main lecture hall.



Fig. 7 Mamoru Sekido (left) and Ryuichi Ichikawa (center) giving away T-shirts in commemoration of the recently decommissioned Kashima 34-m antenna.

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Fig. 8 First IVS Chair Wolfgang Schlüter gave recorded greetings for the IVS 25th Anniversary celebration.



Fig. 9 Current IVS Chair Rüdiger Haas flanked by the former chairs Harald Schuh (left) and Axel Nothnagel (right).



Fig. 10 Traditional Japanese ceremony of opening a sake barrel ("kagami biraki") at the meeting banquet.



Fig. 11 Yasuhiro Koyama (left) receiving his IVS lifetime contribution award. The other awardees were (not shown): Wolfgang Schlüter, Harald Schuh, Axel Nothnagel, Nancy Vandenberg, Alan Whitney, Bill Petrachenko, Jim Lovell, Ed Himwich, Tetsuro Kondo, Arthur Niell, James Campbell, and Xiuzhong Zhang.



Fig. 12 Participants showing off their drumming skills after the performance of the Taiko Student Club of the University of Tsukuba.



Fig. 13 Many thanks to the Local Organizing Committee for the excellent work and providing a homely environment.