



ELKH | Eötvös Loránd
Research Network



International Association of Geomagnetism and Aeronomy

Eötvös Loránd Research Network (ELKH)

Institute of Earth Physics and Space Science (EPSS)

19th IAGA Workshop on Geomagnetic Observatory Instruments, Data
Acquisition and Processing

May 22-26, 2023, Sopron-Tihany, Hungary

<http://iaga-workshop.org/>

3rd circular

Sopron-Tihany, April 18, 2023

The workshop will consist of two parts + a summer school:

- 1) an instrumentation and observation focused first part including the DIM measurement/intercalibration sessions held in Tihany between May 22 (Monday) to May 23 (Tuesday), 2023

and

- 2) a second part is a conference including sessions on new measurement techniques, improved instrumentation, data processing, as well as new science results based on geomagnetic observations. This second part will be held at EPSS in Sopron between May 24 (Wednesday) and 26 (Friday), 2023.

(Transport of participants from Tihany to Sopron will be organized by the host institution on May 23 at 18:00)

A summer school for young technicians and scientists, as well as for new observers will also take place with the leading of Barbara Leichter (GeoSphere) between May 21 (Sun) – 23 (Tue), 2023 at Tihany.

Schedule/deadlines

2023.04.17 publication of the 3rd circular, final program

2023.05.15 deadline for registration

2023.05.22-26. IAGA Workshop and Summer School

In advance registration for the DI measurement sessions

Time slots available for the DIM observations will be 90-minute long each. Two pillars of the absolute house will be available for the measurements. Two further spare pillars will be prepared (one inside, one outside), however, these are not included in the proposed schedule. A preliminary schedule including the allocated time slots for DI absolute measurements has been sent to those signed up for DI measurements (excluding Summer School students). Contact András Csontos at csontos.andras@epss.hu in case your allocated time slot does not fit your travel plan.

Installation of the DIM for absolute measurement:

The theodolites will be placed on an aluminium plate fixed to the pillar (Fig 1a). The plate with 120° etchings provides the "self-centering" of the instrument (Fig 2).



Figure 1. a) (left) The basement of the theodolite with baseplate already removed and the aluminium plate fixed to the pillar, b) (right) the theodolite basement installed on the fixed aluminium plate.

Technical support

This above-described installation procedure implicitly assumes that the basement of the theodolite's leg (an aluminium triangle) is removed before the installation (as seen in Fig.1). In some cases, this removal can be a "challenge". For those who need assistance, and indicate in advance, an on-site help will be provided.

During the scientific sessions in Sopron, Mingeo Ltd. offers free mechanical and optical check on DIM instrument of the participants. If no special tool or material needed, even smaller repairs are carried out immediately.

Scientific Sessions:

The scientific sessions will be held at EPSS in Sopron from May 24 (Wednesday) to 26 (Friday), 2023. Presentations will be organized in four oral sessions plus a poster session.

S1 Updates on geomagnetic observatories and networks (poster or talk)

S2 Observatory instrumentation (poster or talk)

S3 Data processing and distribution (poster or talk)

S4 Data analysis, interpretation and application (poster or talk)

O Open poster session

The duration of the talks, except for the invited talks on Friday, will be 15 minutes + 5 minutes for discussion.

Poster boards have the size A0 (portrait).

An overview of the session schedule is included in this circular. The

Science Committee

chair: Jürgen Matzka, (GFZ, DE)

Anna Naemi Willer (DTU, DK)

Anne Neska (IGFPAS, PL)

Dr Emmanuel Nahayo (SANSA, ZA)

Istvan Lemperger (EPSS, HU)

Christopher Turbitt (BGS, UK)

Seiki Asari (Kakioka, JP)

Katia Pinheiro (Observatório Nacional, BR)

	WEDNESDAY 24 MAY	THURSDAY 25 MAY	FRIDAY 26 MAY
9:00	9:00 Welcome	9:00 S3-T-1	9:00 <i>The Use and Misuse of INTERMAGNET Magnetic Observatory data</i> David Boteler (invited)
9:10		9:20 S3-T-2	
9:20	9:30 S1-T-1	9:40 S3-T-3	9:45 <i>Developments in INTERMAGNET</i> Simon Flower (invited)
9:30		10:00 S4-T-1	
9:40	9:50 S1-T-2	10:20 Coffee Break	10:30 Coffee Break
9:50		10:50 S4-T-2	
10:00	10:10 S1-T-3	11:10 S4-T-3	11:00 O Poster Session
10:10		11:30 S4-T-4	
10:20	10:30 Coffee Break	11:50 S4-T-5	
10:30		12:10 Lunch Break	12:00 Lunch Break
10:40	11:00 S1-T-4		
10:50		13:40 S4-T-6	13:00 Measurement session results & closing
11:00	11:20 S2-T-1	14:00 S4-T-7	
11:10		14:20 S4-T-8	
11:20	11:40 S2-T-2	14:40 S4-T-9	
11:30		15:00 S2 Poster Session	
11:40	12:00 Lunch Break	16:00 Coffee Break	
11:50		16:20 S3 & S4 Poster Session	
12:00			
12:10			
12:20			
12:30			
12:40			
12:50			
13:00			
13:10			
13:20			
13:30	13:30 S2-T-3		
13:40			
13:50	13:50 S2-T-4		
14:00			
14:10	14:10 S2-T-5		
14:20			
14:30	14:30 S2-T-6		
14:40			
14:50	14:50 Coffee Break		
15:00			
15:10			
15:20	15:20 S1 Poster Session		
15:30			
15:40			
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16:00			
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16:50			
17:00			
17:10			

- S1 Updates on geomagnetic observatories and networks
- S2 Observatory instrumentation
- S3 Data processing and distribution
- S4 Data analysis, interpretation and application
- O Open poster session

May 24, Wednesday

09:00-09:30 Welcome

09:30-09:50 *85th anniversary of PAG observatory – history and present*

Trifonova P., Metodiev M

National Institute of Geophysics, Geodesy and Geography-Bulgarian Academy of Sciences, Bulgaria, Sofia, Acad.G.Bonchev Str.,B1.3

09:50-10:10 *A renovation project of magnetic observation facilities and data processing at Syowa Station, Antarctica*

Oogi, J. (1), Inamura, T. (1), Asari, S. (1), Yamagiwa, R. (1), Hirahara, H. (1), Arita, S. (1), Nishida, S. (2), Yara, T. (1), Kadokura, A. (3)(4)(5)

(1) Kakioka Magnetic Observatory, Japan Meteorological Agency, Japan (2) Osaka Regional Headquarters, Japan Meteorological Agency, Japan (3) Polar Environment Data Science Center, ROIS-DS, Japan (4) National Institute of Polar Research, Japan (5) The Graduate University for Advanced Studies, SOKENDAI, Japan

10:10-10:30 *Greenland geomagnetic observatories*

Pedersen, L. W., Willer, A., Oechsle, J.

DTU Space, Danish Technical University, Denmark

10:30-11:00 Coffee Break

11:00-11:20 *Recent changes in the IGP magnetic observatory and variation station networks*

Lesur, V., Heumez, B., Telali, A., Rivierre, J.P., Maury, V. Coisson, P.

Université Paris Cité, Institut de physique du globe de Paris, CNRS

11:20-11:40 *Comparison of single-axis fluxgate sensors*

Domján, Ádám, Hegymegi, László, Hegymegi, Csaba, Merényi, László, Vereb,

György Máté

MinGeo Ltd

11:40-12:00 *First test results of the ADS automatic declination/inclination theodolite*

Merényi, L., Hegymegi, L., Hegymegi, Cs., Domján, Á., Szöllősy, J., Pazonyi, J., Vereb, Gy.

Mingeo Ltd., Hungary

12:00-13:30 Lunch Break

13:30-13:50 *Low-noise Magnetic Field Measurements using Copper Permalloy Fluxgate Cores*

Narod, B.B. (1), Miles, D.M. (2)

(1) University of British Columbia, Canada (2) University of Iowa, USA

13:50-14:10 *Ten years of geoelectric field monitoring at UK geophysical observatories*

Lyon, R, Baillie, O, Richardson, G.S.

British Geological Survey, United Kingdom

- 14:10-14:30 *Filling the gap: extending the magnetic observatory network to the sea*
Alexandre Gonsette, Stephan Bracke, Antoine Poncelet, Olivier Hendrickx, François Humbled and Jean Rasson
Royal Meteorological Institute, Belgium
- 14:30-14:50 *New suspended sensor for 1-second INTERMAGNET standard variometer LEMI-025*
Marusenkov, A. (1), Pronenko, V. (1), Parylo, I. (2)
(1) Lviv Centre of Institute for Space Research, National Academy of Sciences and National Space Agency of Ukraine, (2) LLC LEMI
- 14:50-15:20 Coffee Break
- 15:20-17:00 **S1 poster session**
- S1-P-1 *Decades, 1 Story in the service of Geomagnetism - Surlari National Geomagnetic Observatory*
Dinu Luminita, Niculici Eugen Laurentiu
Geological Institute of Romania
- S1-P-2 *Starting a variometer station network in France*
B. Heumez, K. Telali, J.P. Rivierre, E. Parmentier, V. Lesur
Université Paris Cité, Institut de physique du globe de Paris, CNRS, Paris
- S1-P-3 *La Réunion Island: a new magnetic observatory in the Indian Ocean*
B. Heumez, F. Pesqueira, K. Telali, J.P. Rivierre, V. Lesur, A. Peltier
Université Paris Cité, Institut de physique du globe de Paris, CNRS, Paris
- S1-P-4 *Improvements in the monitoring capability of the Sodankylä geomagnetic observatory (SOD)*
Raita, T., Rautiainen, J., Rantala, T., Nikiforou, A., Iinatti, T. and Tanskanen, E.
Sodankylä Geophysical Observatory, University of Oulu
- S1-P-5 *Czech Repeat Stations and Primary Network*
Tomáš Bayer (1), Michal Vlk (1) and Radomír Kopecký (2)
(1) Institute of Geophysics of the ASCR, Prague, Czech Republic (2) Czech Military Geographic Survey, Dobruška, Czech Republic
- S1-P-6 *Recent activities for upgrade and maintenance of the geomagnetic observatory Gan, Maldives*
Ahmed Muslim (1), Jürgen Matzka (2), da Silva, M.V. (2) Jakub Velimsky (3), Alexey Kuvshinov (4)
(1) Maldives Meteorological Service, Maldives, (2) GFZ German Research Center for Geosciences, Germany, (3) Charles Universtiy, Department of Geophysics, Czech Republic, (4) ETH Zurich, Switzerland
- S1-P-7 *Sao Teotónio, a new geomagnetic observatory in Portugal*
Jorge Cruz (1), Jürgen Matzka (2), Guilherme Madureira (1), Fernando Carrilho (1), Torsten Seeger (2), Stefan Rettig (2), Juergen Haseloff (2), Oliver Bronkalla (2), da Silva, M.V. (2)
IPMA Instituto Português do Mar e da Atmosfera (1), GFZ German Research Center for Geosciences, Germany (2)

- S1-P-8 *Equatorial magnetometer station Macapa, Brazil, and temperature correction of the fluxgate recordings*
 Cristiano Mendel (1), Katia Pinheiro (2), Jürgen Matzka (3), da Silva, M.V. (3)
 Universidade Federal do Para, Brazil (1), Observatório Nacional, Brazil (2), GFZ
 German Research Center for Geosciences, Germany (3)
- S1-P-9 *The New Italian Magnetic Repeat Network at 2020.0*
 Dominici, G. (1), Di Mauro, D. (1), Meloni, A. (1), Carroccio, M. (2), Cauli, F. (2),
 Sperti, M. (2)
 (1) Istituto Nazionale di Geofisica e Vulcanologia, Rome, Italy (2) Istituto Geografico
 Militare, Florence, Italy

May 25, Thursday

- 09:00-09:20 *Analysis of slow drift in geomagnetic baseline data obtain at Port-Blair, India*
 Rahul Rawat, Gopi K. Seemala and Geeta Vichare
 Indian Institute of Geomagnetism, New Panvel, Navi Mumbai, India
- 09:20-09:40 *Remote error analysis and training, including some examples from Tristan da Cunha and St Helena geomagnetic observatories*
 da Silva, M.V., Matzka, J.
 Helmholtz Centre Potsdam GFZ German Research Centre for Geosciences GFZ,
 Geomagnetism, Potsdam, Germany
- 09:40-10:00 *An automatic one-second data checking routine for INTERMAGNET (IMBOT)*
 Leonhardt, R.
 GeoSphere Austria
- 10:00-10:20 *Impulses of the Geomagnetic Secular variation in Indian region – Recent observations*
 Manjula Lingala, Kusumita Arora and Archana R.K
 CSIR- National Geophysical Research Institute
- 10:20-10:50 Coffee Break
- 10:50-11:10 *An analysis of magnetic observatory data to shed light on geomagnetic secular variation over Southern Africa between 2014 and 2022*
 Khanyile, S.L. (1,2), Nahayo, E. (1)
 (1) South African National Space Agency, South Africa (2) University of KwaZulu-Natal
- 11:10-11:30 *On the tsunami-generated magnetic field*
 Hiroaki Toh
 Division of Earth and Planetary Sciences, Graduate School of Science, Kyoto
 University, Japan

- 11:30-11:50 *Detection of anomalous induced magnetic fields, due to geomagnetic coast effect, by transfer function method and by magnetic gradient measurements (Comprehensive study)*
Csontos A.
Institute of Earth Physics and Space Science
- 11:50-12:10 *Analysis of geomagnetic observatory data and detection of geomagnetic jerks with the MOSFiT software package*
da Silva, M.V. (1), Pinheiro, K. (2), Ohlert, A. (1), Matzka, J. (1)
(1) Helmholtz Centre Potsdam GFZ German Research Centre for Geosciences GFZ, Geomagnetism, Potsdam, Germany (2) Observatório Nacional, Geophysics, Rio de Janeiro, Brazil.
- 12:10-13:40 Lunch Break
- 13:40-14:00 *DTU Magnetometer network*
Willer A., Pedersen L.W, Eldor M. Oechsle J.
DTU Space, National Space Institute, Technical University of Denmark
- 14:00-14:20 *Ground Magnetic Networks for Monitoring Geospace*
Balázs Heilig (1,2)
(1) Institute of Earth Physics and Space Science, Sopron (2) Eötvös University, Budapest
- 14:20-14:40 *Characteristics of the Second Geomagnetic Survey on the Secular Stations Reference Network in the Republic of Serbia*
Spomenko J. Mihajlović
Republic Geodetic Authority, Bulevar Vojvode Mišića 39, 11000 Belgrade, Serbia
- 14:40-15:00 *Geomagnetic detection of the atmospheric acoustic resonance at 3.8 mHz during the Hunga Tonga eruption*
Yosuke Yamazaki (1), Gabriel Brando Soares (2), Jürgen Matzka (3)
(1) IAP Leibniz Institute of Atmospheric Physics, Germany, (2) Observatorio Nacional, Brazil, (3) GFZ German Research Center for Geosciences, Germany
- 15:00-16:00 **S2 poster session**
- S2-P-1 *Which is the better method for the absolute measurements on the Geomagnetic observatory at Hurbanovo?*
Vaczyova, M. (1), Koci, E. (1,2)
(1) Earth Science Institute SAS, Slovakia, (2) Slovak central observatory Hurbanovo, Slovakia
- S2-P-2 *Characteristics of MinGeo's Declination Inclination Magnetometers*
Cs.Hegymegi, L. Merényi, L. Hegymegi, Á. Domján, J. Szöllősy, J. Pazonyi, Gy. Vereb
Mingeo Ltd., Budapest, Hungary

S2-P-3 *Magnetic susceptibility measurements in geomagnetic observatory installation practice*
Sidorov, R.V. (1), Soloviev, A.A. (1, 2), Krasnoperov, R.I. (1), Grudnev, A.A. (1), Karapetyan, J.K. (3), Lazarev, D.D. (1)
(1) Geophysical Center of the Russian Academy of Sciences (GC RAS), Moscow, Russia (2) Schmidt Institute of Physics of the Earth of the Russian Academy of Sciences (IPE RAS), Moscow, Russia (3) A. Nazarov Institute of Geophysics and Engineering Seismology of the National Academy of Sciences of Republic of Armenia (IGES NAS RA), Gyumri, Armenia

S2-P-4 *Digital vector magnetometer development for IPGP network*
A. Telali, T. Luc, X. Lalanne, B. Heumez, J.P. Rivierre, P. Coïsson, V. Lesur
Université Paris Cité, Institut de physique du globe de Paris, CNRS, Paris

16:00-16:20 Coffee Break

16:20-17:30 **S3-S4 poster session**

S3-P-1 *The Kp index, the new hourly and half-hourly, Kp-like geomagnetic Hpo indices, and their new data portal*
Jürgen Matzka (1), Guram Kervalishvili (1), Jan Rauberg (1), Yosuke Yamazaki (2)
(1) GFZ German Research Center for Geosciences, Germany, (2) IAP Leibniz Institute of Atmospheric Physics, Germany

S3-P-2 *A software to extract time series from historical magnetogram*
Pierdavide Coïsson, Andreina Garcia, Vincent Lesur, Benoit Heumez
Université Paris Cité, Institut de physique du globe de Paris, CNRS

S4-P-1 *Temporal changes of the geomagnetic field in Croatia*
Mandic, I., Curman, D.
Dpt. of Geophysics, Faculty of Science, University of Zagreb

S4-P-2 *Geomagnetically induced currents related to impulsive space weather events at low latitudes*
Kouassi N'Guessan
Laboratoire de Physique de l'Atmosphère, UFR-SSMT, Université Félix Houphouët Boigny, Abidjan, Côte d'Ivoire

May 26, Friday

09:00-09:45 *The use and misuse of INTERMAGNET magnetic observatory data (invited)*
David Boteler
Natural Resources Canada

09:45-10:30 *Developments in INTERMAGNET (invited)*
Simon Flower
British Geological Survey

10:30-11:00 Coffee Break

11:00-12:00 **O poster session**

- O-P-1 *Dimensionality and directionality analysis of the Nasr-Abad magnetotelluric data*
Authors: Montahaei, M.
Affiliations: assistant professor, Institute of Geophysics, University of Tehran
- O-P-2 *A Pan-African magnetometer station proposal*
Authors: Amoré E. Nel (1) , Jürgen Matzka (2), Achim Morschhauser (2), Nigussie Giday (3) and John-Bosco Habarulema (1)
Affiliations: (1) The South African National Space Agency, South Africa. (2) Geoforschungszentrum Potsdam, Germany. (3) Space Science and Geospatial Institute, Ethiopia.
- O-P-3 *A virtual reality environment of the Conrad Observatory: a tool for public outreach and scientific planning*
Authors: Leichter, B., de Wit, R. Leonhardt, R.
Affiliations: GeoSphere Austria, HoheWarte 38, 1190 Wien
- O-P-4 *A tablet android application for absolute magnetic measurement*
Authors: Hegymegi L. Hegymegi Cs. Domján Á. Vereb Gy. M.
Affiliations: Mingeo Ltd.

Summer School

The summer school will provide in-depth courses on DI measurements, instrumentation and data processing given by experts in the specific fields. The summer school is aimed at young technicians and scientists, as well as new observers. The participation in the Summer School is limited to 15 students. The coordinator and the leader of the Summer School is Barbara Leichter (GeoSphere).

The IAGA-Workshop 2023 Summer School will take place from May 21 to May 23, 2023, in Tihany, starting directly before and overlapping with the 19th IAGA Workshop on Geomagnetic Observatory Instruments, Data Acquisition and Processing

Accommodation (from May 20 to May 23) and meals will be covered by the school registration fee. On May 23, a transfer to Sopron (180 km) will be provided for all students. Transfer to nearby train station will also be provided in case you do not intend to participate in the rest of the workshop in Sopron.

As a student you are eligible for attending all scientific sessions, the exhibition and the ice-breaker in Sopron, as well as the social event in Tihany. However, you have to book your hotel in Sopron at your cost as all the other participants.

Summer School students intending to give a presentation at the workshop in Sopron, pay the regular workshop participant fee.

Time Schedule:

May 20, Saturday

Day of arrival

May 21, Sunday

- | | |
|-------------|---|
| 09:00-10:30 | <i>A course on geomagnetic measurements from scratch 1</i> (Jürgen Matzka, GFZ, Potsdam, Germany; Barbara Leichter, GeoSphere, Vienna, Austria) |
| 10:30-10:50 | coffee break |
| 10:50-12:45 | <i>A course on geomagnetic measurements from scratch 2</i> (Jürgen Matzka, GFZ, Potsdam, Germany; Barbara Leichter, GeoSphere, Vienna, Austria) |
| 12:45-14:15 | lunch break |

14:15-18:00 *DI measurements and Sun shots 1* (Alan Berarducci, company Compass Rose, USA) and *DI measurement in practice*

May 22, Monday

09:00-10:30 *Observatory Instrumentation 1* (Hegymegi László, Hegymegi Csaba, Domján Ádám, Mingeo Ltd., Budapest, Hungary)

10:30-10:50 coffee break

10:50-12:45 *Observatory Instrumentation 2* (Hegymegi László, Hegymegi Csaba, Domján Ádám, Mingeo Ltd., Budapest, Hungary)

12:45-14:15 lunch break

14:15-18:00 *DI measurement in practice*

18:00-21:00 Social event at Ferencz Pince (right next to the observatory)

May 23, Tuesday

09:00-10:30 *Data processing course 1* (Chris Turbitt, BGS, UK)

10:30-10:50 coffee break

10:50-12:45 *Data processing course 2* (Chris Turbitt, BGS, UK)

12:45-14:15 lunch break

14:15-18:00 *DI measurement in practice*

18:00 Transportation to Sopron (by bus)

Exhibition

During the scientific session in Sopron there will be an instrument exhibition. Participants can see widely used geomagnetic instruments and the latest developments for observatory and field applications. Exhibitors give explanation on their technical specifications and usage together with installation requirements of the instruments.

Registration

Registration at <http://iaga-workshop.org/> is open until May 15, 2023.

Registration fee

Attendee	Registration fee
Workshop participant	450 EUR
Exhibitor	450 EUR
Companion	100 EUR
Summer School	200 EUR

Payment of the registration fee should be made by bank transfer.

Bank details will be provided in a pro-forma invoice you will receive within a few days/weeks following your registration form is submitted.

Registration fee (any kind) covers

- coffee/tea breaks
- Social event at Tihany (May 22) at Ferencz Pince
- Ice breaker event on Wednesday (May 24) evening in Sopron
- Conference dinner on Thursday (May 25)
- Transfers from Tihany to Sopron on May 23 (see details on workshop program)

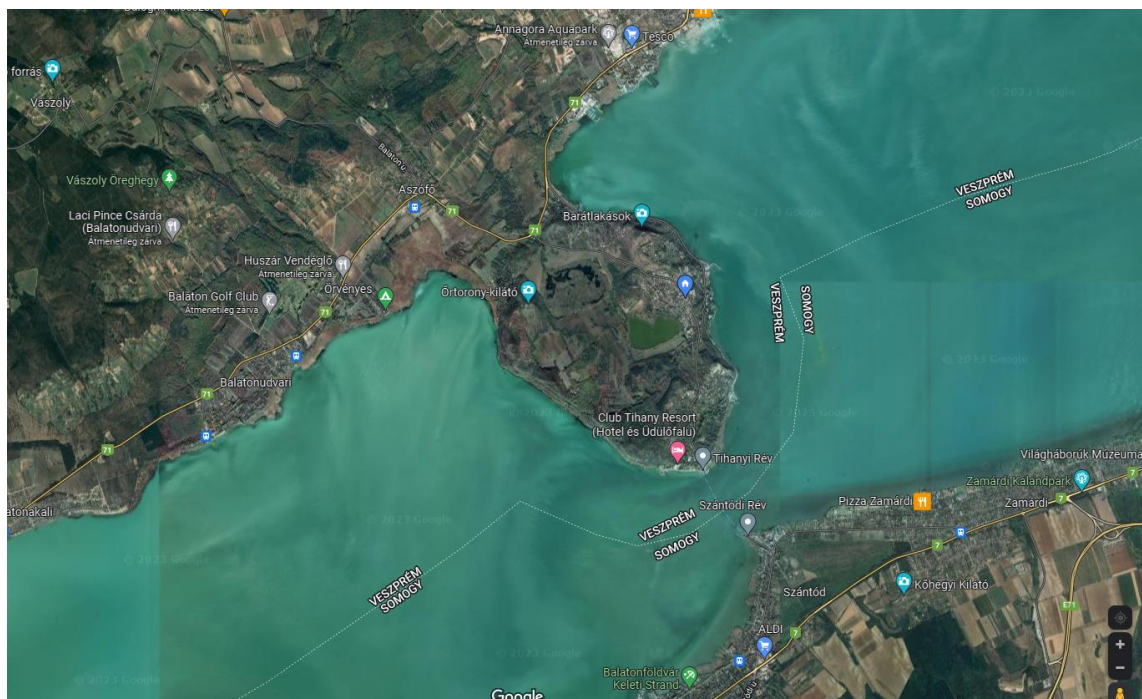
Locations

The workshop will take place at the Tihany Geophysical Observatory (DIM sessions and Summer School) and at EPSS (conference part) in Sopron.

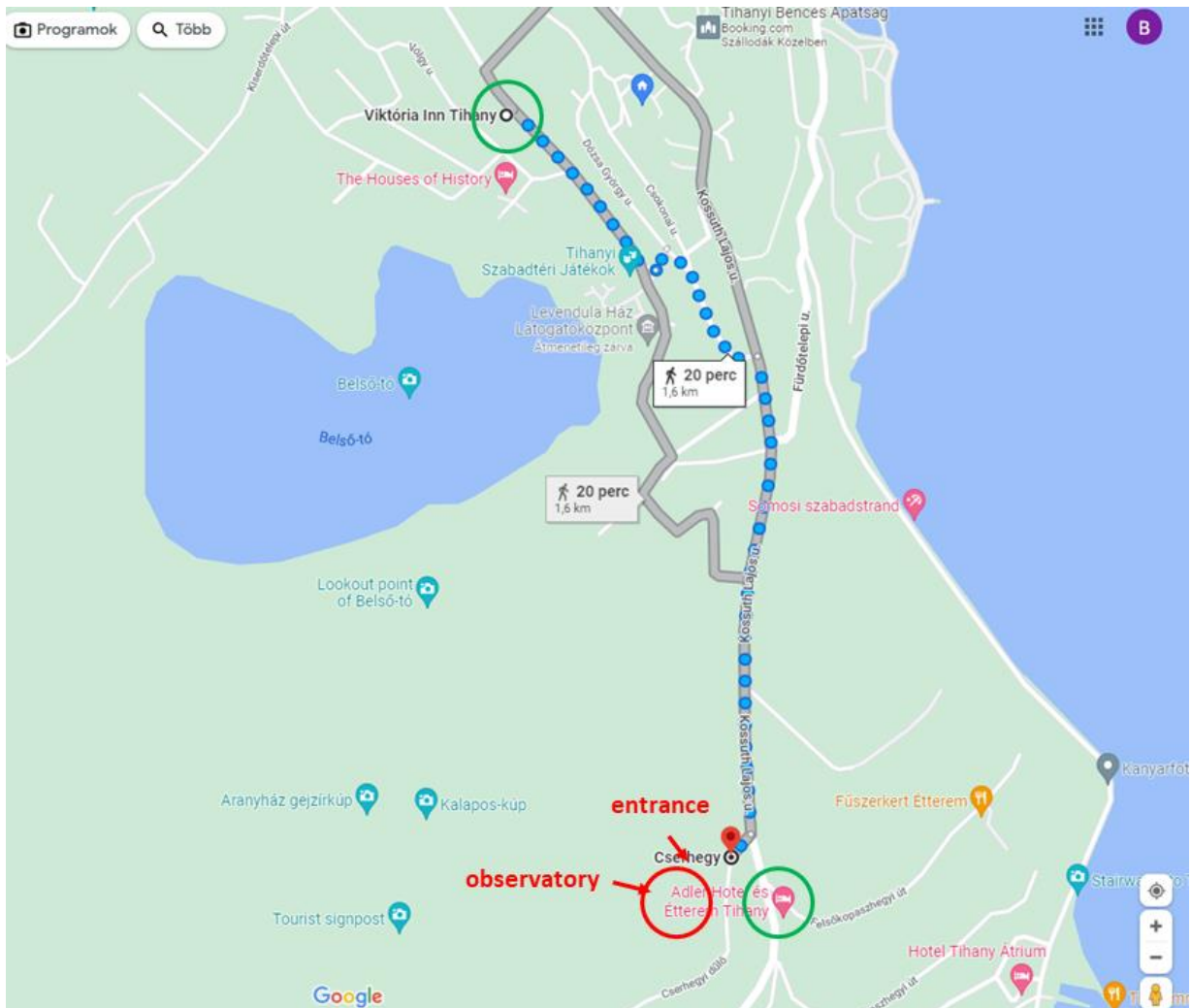


Tihany

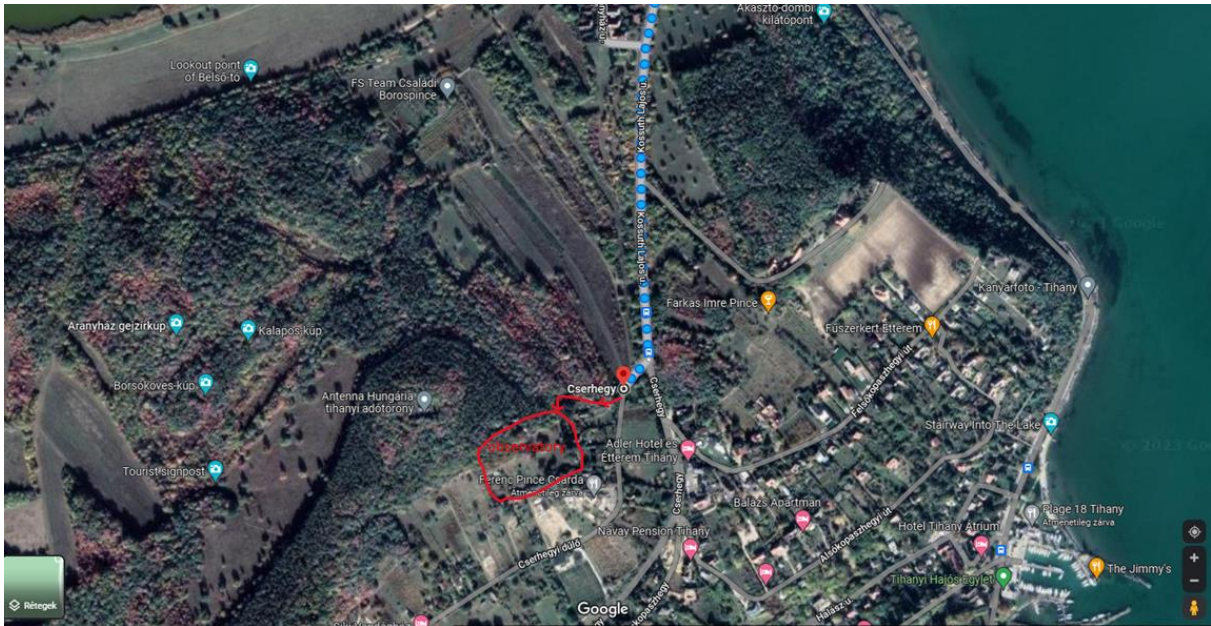
Tihany is located on a peninsula in the lake Balaton. The Tihany Geophysical Observatory (THY) was opened in 1954.



Once in Tihany, you can find the observatory entrance is at 46.90.7 N, 17.8888 E (see the red circle in the map) This is at a 20 min walk from Viktoria Inn (Summer School location) and 3 min from Hotel Adler (both accommodations are circled in green in the map below). Viktoria Inn and Hotel Adler will also be meeting points where we arrange transfers from to the observatory. (Other meeting points may be arranged).



walking path (1.6 km, 25 min) from Viktoria Inn (location of the Summer School) to the observatory (location of the DIM sessions)



Tihany: observatory area and access (blue: walking path from Viktoria Inn)



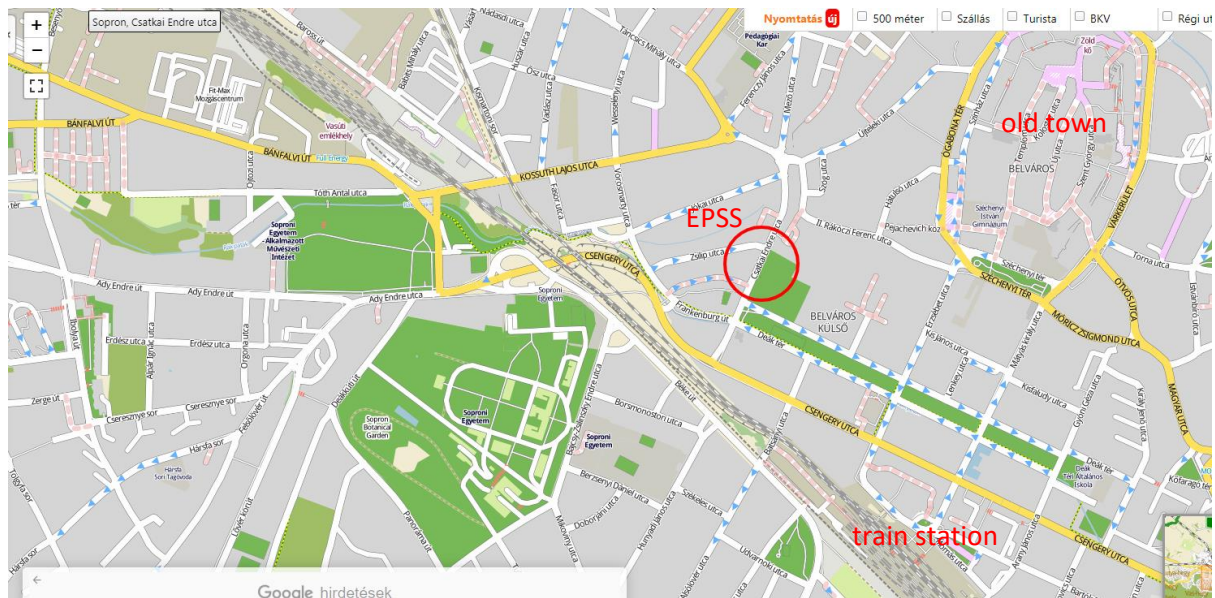
Tihany: observatory area and access at a closer look. Following the red arrows you arrive at the observatory gate. (blue: walking path from Hotel Adler)

Sopron

Institute of Earth Physics and Space Science (EPSS)
(Földfizikai és Űrtudományi Kutatóintézet)

Address: 9400 Sopron, Csatkai E. u. 6-8.

web: www.epss.hu/en



EPSS and the train station in Sopron (<https://utcakereso.hu/>)



EPSS main building (Sopron, Csatkai E. u. 6-8). You can enter through this gate.

ACCOMMODATION

Tihany

Please find information given in the 2nd circular.

Summer School

Students will stay at or near Viktoria Inn. They do not need to book a room as a room will be provided to all students covered by their fee. However, students attending the Sopron part of the meeting should book their room at their own cost.

Sopron

We do not have any special arrangement or recommendation in Sopron. Please use 'booking.com' or 'szallas.hu' to find your accommodation. Please consider the location of the workshop upon booking.

TRAVEL

Arrival by car:

Please use Google Maps / Waze or similar navigation tool to find your destination.

Tihany

You can park at Hotel Adler or at the foot of the hill where the steep private road leading to the observatory starts (see maps above).

Sopron

There are a limited parking lots available behind the main building of EPSS. You can drive in on the right side of the main building. The gate will be open daily from 8:00-20:00 CET.

Arrival by train:

Online timetables

trains: <https://jegy.mav.hu/> (available in English)

buses: <https://menetrendek.hu/mobile/?lng=en>

Please note that local and long-distance public transportation (bus, train) for EU citizens over 65 years is free. You only need to show up your ID card or passport.

Tihany

The nearest train station is Balatonfüred. There are regular connections from/to Budapest (Budapest-Kelenföld). From Balatonfüred you can reach Tihany by bus, the bus station is right next to the train station. The bus stop at Hodel Adler is called Tihany szőlőhegy, the one in the centre is Tihany posta. The closest to Viktoria Inn (for students) is Tihany forduló.

If you book it in advance, we can provide a car transfer from the station to your accommodation in Tihany. We will provide a Google Sheet where you can sign up for transfer.

The train ticket price is 2520 HUF (6.5 EUR). The bus from Balatonfüred is 350 HUF (1 EUR).

Sopron

The nearest train station is Sopron. There are regular connections from/to Vienna and Budapest. From Budapest, direct trains to Sopron start at Budapest-Keleti every 2 hours.

Arrival by plane:

Tihany

The nearest airport is 'Liszt Ferenc Airport 2' (BUD). Trains to Balatonfüred (closest station to Tihany) starts from 'Kelenföld vasútállomás'. You can get to the railway station by means of public transport.

link to the public transport at Budapest

<https://bkk.hu/en/>

You start at 'Liszt Ferenc Airport 2', your destination is 'Kelenföld vasútállomás'. We recommend a combination of bus 100E to 'Kálvin tér' stop (first stop, 30 min) then subway 'M4' in the direction of 'Kelenföld vasútállomás' (south-west end stop of the metro line). For the rest of your travel see section 'Arrival by train'.

The airport shuttle bus (100E) ticket is 1500 HUF (~ 4 EUR), a single ticket valid for the metro is 350 HUF (~ 1 EUR). Tickets are available from vending machines at the airport. Mobile tickets (valid on cell phones) are also available.

Sopron

The nearest and most convenient airport is Vienna International Airport (VIE). Train connection for flights in Vienna Airport-Vienna Hbf. and Vienna Hbf-Sopron relation can be scheduled on the website <https://www.thetrainline.com>

You can also reach Sopron from the 'Liszt Ferenc Airport 2' (BUD) Budapest. You can get to the railway station by means of BKK public transport. Link to the public transport in Budapest: <https://bkk.hu/en/>

You start at 'Liszt Ferenc Airport 2', your destination is 'Keleti pályaudvar'. We recommend a combination of bus 100E to 'Kálvin tér' stop (first stop, 30 min) then subway 'M4' which terminates at 'Keleti pályaudvar' (north-east end of the metro line). For the rest of your travel see section 'Arrival by train'.

The Budapest airport shuttle bus (100E) ticket is 1500 HUF (~ 4 EUR), a single ticket valid for the metro is 350 HUF (~ 1 EUR). Tickets are available from vending machines at the airport. Mobile tickets (valid on cell phones) are also available.

General travel information

Visitors from outside the European Union (EU) should check whether or not a Hungarian visa is required. In most cases, a valid passport is sufficient.

You can check your visa conditions here:

<https://konzinfo.mfa.gov.hu/en/how-apply-visa>

All insurance and visa costs must be covered by the participant.

We provide a Letter of Invitation for visa application purposes only on request. Please send your request to secretariat@epss.hu with 'IAGA WS visa' in the subject.

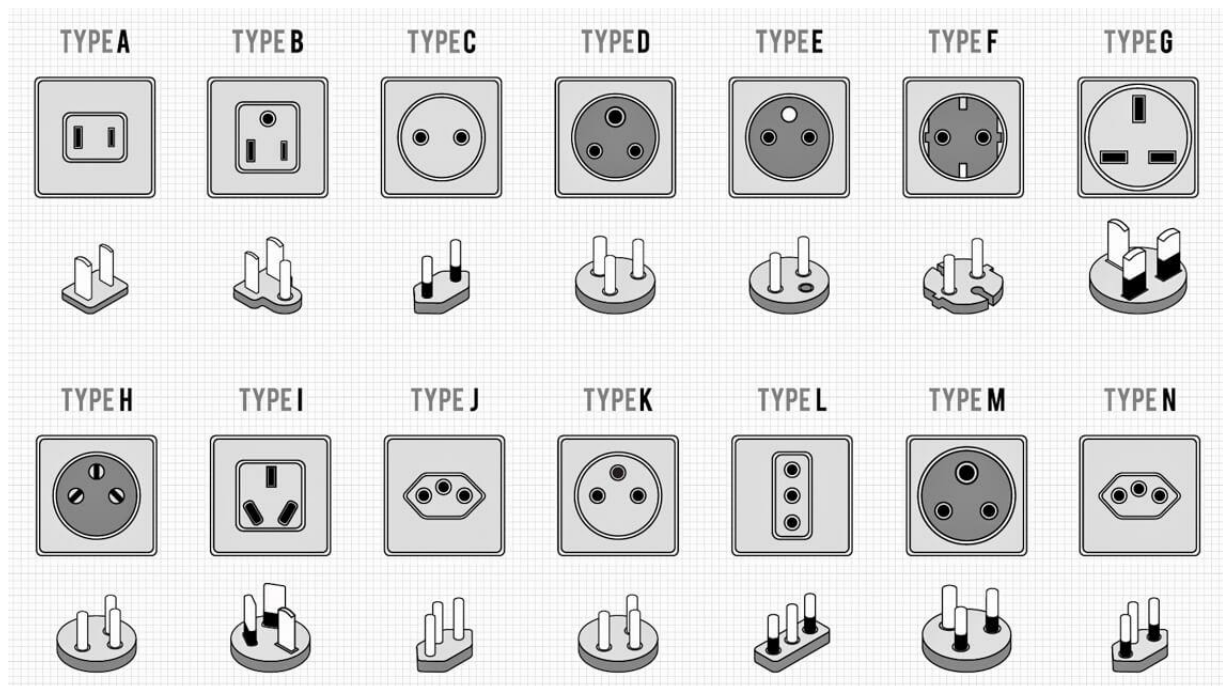
Hungary is a member of the Schengen Agreement. The Schengen visa represents the collective of European countries that have mutually decided to eliminate passport and immigration controls at their joint borders. Participants from outside these countries and the European Union (EU) but with a valid visa for one of the Schengen countries may move freely into and within any other Schengen country.

Currency

The Hungarian currency is called forint (HUF or Ft). The current exchange rate is around 400 HUF/EUR, 370 HUF/USD, however, significant fluctuations occur frequently (now HUF/EUR has approached 370). Credit/debit cards (Mastercard, Maestro, VISA) are accepted in most places both at Tihany and in Sopron.

Mains sockets

Mains power is 220 V 50 Hz. Hungary uses the Type F mains socket (see below), similar to but not identical to the French Type E (used e.g., in France, Belgium, Czechia, Slovakia), or Type C (once widely used in Europe, no grounding).



Local Organizing Committee

chair: Viktor Wesztergom, director of EPSS (host)
István Lemperger (EPSS, Sopron, HU)
András Csontos (EPSS, Tihany, HU)
Balázs Heilig (EPSS, Tihany, HU)
Tibor Rubóczki (EPSS, Sopron, HU)
Karolina Szabóné André (EPSS, Sopron, HU)
Barbara Leichter (GeoSphere, Wien, AT)
Roman Leonhardt (GeoSphere, Conrad Observatory, AT)
László Hegymegi (Mingeo, HU)

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