



YouResAstro 2012

**6th Workshop of Young Researchers in
Astronomy and Astrophysics
The Multi-wavelength Universe from Starbirth to
Star Death**

Budapest, 3-6 September 2012
<http://astro.elte.hu/YouResAstro2012/>



SCIENTIFIC PROGRAMME**Monday (3 September)**

8:30-9:30	Registration	
9:30-10:00	Zoltán Szökefalvi-Nagy (director of Wigner RCP RMI)	Opening ceremony
10:00-10:30	Vera Könyves	From interstellar filaments 2 protostars
10:30-10:45	Tamás Szalai	Dust formation in supernovae - type II-P SNe with the eyes of Spitzer
10:45-11:15	Coffee break	
11:15-11:30	Krisztina Gabányi	Searching for silicate in the protoplanetary disk of DG Tau with VLT/MIDI
11:30-11:45	Dániel Barta	Relativistic model for cold spherical interstellar gas clouds
11:45-12:00	Erika Verebélyi	Herschel Galactic Cold Cloud Core Analysis
12:00-13:30	Lunch break	
13:30-13:45	Gábor Marton	Active galactic HI shells
13:45-14:00	Elza Szegedi-Elek	A new H-alpha survey in Orion
14:00-14:15	Sarolta Zahorecz	Observability of YSOs with the WISE and AKARI infrared observatories
14:15-14:45	Csaba Kiss	TNO's are cool! (TNO's as seen with Herschel)
14:45-15:00	András Pál	Thermal measurements of prominent trans-Neptunian objects
15:00-15:15	Mattia Galiazzo	A statistical dynamical study of meteorite impactors: case study from Bosumtwi
15:15-15:45	Coffee break	
15:45-16:15	Roland Thissen	Astrophysical laboratory
16:15-16:30	Katalin Gmélig	Measuring light elements (e.g. H, B, Cl) and REE with neutron activation techniques
16:30-16:45	Zoltán Szalai	VIS-NIR reflectance spectrometry measurements of soils and sediments
16:45-17:00	Ákos Kereszturi	Wet environment analysis using IR spectra on Mars

Tuesday (4 September)

9:00-9:45	István Ballai	A seismological view of the solar atmosphere
9:45-10:00	Gábor Marschalkó	Turbulent magnetic energy spectrum and the cancellation function
10:00-10:15	Diana Constantin	Description of the meridian filaments group belong C24
10:15-10:30	Gábor Facsó	GUMICS simulations of the EU FP7 ECLAT Project
10:30-11:00	<i>Coffee break</i>	
11:00-11:15	Bernadett Belucz	A Babcock-Leighton flux transport dynamo with solar-like differential rotation
11:15-11:30	Melinda Nagy	Oscillator models of the Solar Cycle and the Waldmeier-effect
11:30-11:45	Veronika Barta	A statistical analysis on the relationship between thunderstorms and Sporadic E Layer over Rome
11:45-12:00	Krisztián Vida	A quest for activity cycles in low mass stars
12:00-13:30	<i>Lunch break</i>	
13:30-14:00	Zsolt Kövári	From stellar spots to surface flows - observing the dynamo
14:00-14:15	Levente Kriskovics	Surface tomography of the RS CVn-type double-lined binary V824 Ara
14:15-14:30	László Molnár	Blazhko-effect in Cepheids too? First results on V473 Lyr
14:30-14:45	Emese Plachy	Elimination of long term variation from chaotic lightcurves
14:45-15:00	Abdalla Almohammad	Light curve analyses for short period binary Star XY Lmi
15:00-15:30	<i>Coffee break</i>	
15:30-16:00	Szilárd Csizmadia	Next Generation Transit Light Curves
16:15-16:30	Tamás Borkovits	Dynamical masses, absolute radii and 3D orbits of the triply eclipsing HD 181068 from Kepler photometry
16:15-16:30	Péter Klagyivik	Hunting for binary Cepheids using lucky imaging technique
16:30-16:45	Imre Nagy	The stability of Kepler-36 two-planet system
16:45-17:00	Thomas Maindl	SPH for simulating early planetary systems

Wednesday (5 September)

9:00-9:30	Áron Süli	Dynamics of planet formations
9:30-9:45	Vera Dobos	Habitable zone of planetary systems
9:45-10:00	Renáta Pintér-Rajnai	The modified Picard iteration and its applications
10:00-10:15	Ákos Bazsó	Stability of the spatial restricted three-body problem and secondary resonances
10:15-10:30	Zsuzsanna Tóth	Dynamical stability of the Gliese 581 exoplanetary system
10:30-11:00	<i>Coffee break</i>	
11:00-11:30	István Csabai	Advanced statistical and computational methods in astronomical research
11:30-11:45	József Varga	Morphological analysis of SDSS disc galaxies
11:45-12:00	Levon Aramyan	The SNe and their host galaxies in SDSS DR8
12:00-12:15	András Kovács	Phases and Generalized Phases of the Cosmic Microwave Background
12:15-13:30	<i>Lunch break</i>	
13:30-13:45	Emma Kun	Constraints on the supermassive black hole spin from jet observations
13:45-14:00	Judit Fogassy	Jet-ISM interaction in a nearby supermassive blackhole: AGN feedback in action
14:00-14:15	József Kóbori	The afterglows of the intermediate group of gamma-ray bursts
14:15-14:30	Márton Tápai	Electromagnetic flares in the jet spectrum as beacons for gravitational waves from supermassive black hole mergers
14:30-14:45	Nikit Deshmukh	Elastic scattering using weakly bound nuclei
17:00-	<i>Social event</i>	

Thursday (6 September)

9:00-9:30	István RÁCZ	Some of the recent developmets in general relativity
9:30-9:45	Gergely Debreczeni	Hunt for gravitational waves
9:45-10:00	Máté Nagy	Evolution of non-linear dynamics using GPUs
10:00-10:15	Marek Dwornik	Constraining Horava-Lifshitz gravity by black hole accretion
10:15-10:30	Piero Benazzo	A topology of four frames of reference interlinking the observed empirical universe with the unobservable cosmos, providing the latter with empirical evidence
10:30-11:00	<i>Coffee break</i>	
11:00-11:15	Gergely Gábor Barnaföldi	Limiting parameters Kaluza-Klein stars
11:15-11:30	Kristian Petrik	Density dependence of effective nuclear interaction and its effects on compact stars
11:30-11:45	Zsolt Horváth	Black hole tidal charge constrained by strong gravitational lensing
11:45-12:00	Dymitro Rogozin	Nonthermal radiation of the superconducting cosmic strings
12:00-12:15	<i>Closure</i>	

Poster of the second contribution

Diana Constantin	Mercury's perihelion advance determination using photographic data
Katalin Lukács	Distribution of Directional Discontinuities in the interplanetary magnetic field

CONFERENCE PROCEEDINGS

Conference proceeding will be published as a special issue of **Astronomische Nachrichten**. AN is the oldest astronomical journal of the world that is still being published. In its renewed appearance it is intended to serve as a supplement in all fields of astrophysical research including instrumentation, numerical methods, solar and stellar astrophysics, extragalactic and cosmological research. It can be used also for *refereed workshop proceedings*.

Page limit for contribution talks: 4 pages

Submission deadline: 15 October 2012

Web page of Astronomische Nachrichten: <http://www.aip.de/AN/>

OTHER INFORMATION

How to get to the KFKI campus?

To reach the campus take **bus No. 21** at *Széll Kálmán (Moszkva) tér*. KFKI is at the other terminal (*Csillebérc*) of bus No. 21. Buses also stop at *Budapest Déli pályaudvar (Southern Railway Station)*, the terminal of underground line No. 2 (red line), which is the first stop just after Széll Kálmán (Moszkva) tér. Buses No. 21 run relatively rarely. There is, however, an auxiliary **line No. 21A**, running more frequently, which also depart from Széll Kálmán tér to *Normafa*. KFKI campus is a 15-20 minutes walk from Normafa.

In daytime, buses follow each other within 5-7 minutes, every third run as No. 21, direct to KFKI. After 8:30 pm the frequency changes to 10-15 minutes. The first and last buses depart at 5:04 am, and 11:45 pm from Széll Kálmán tér to KFKI, and 4:18 am, 11:08 pm from KFKI to Széll Kálmán tér. For detailed timetable please consult with http://www.bkv.hu/hu/busz_menetrend.



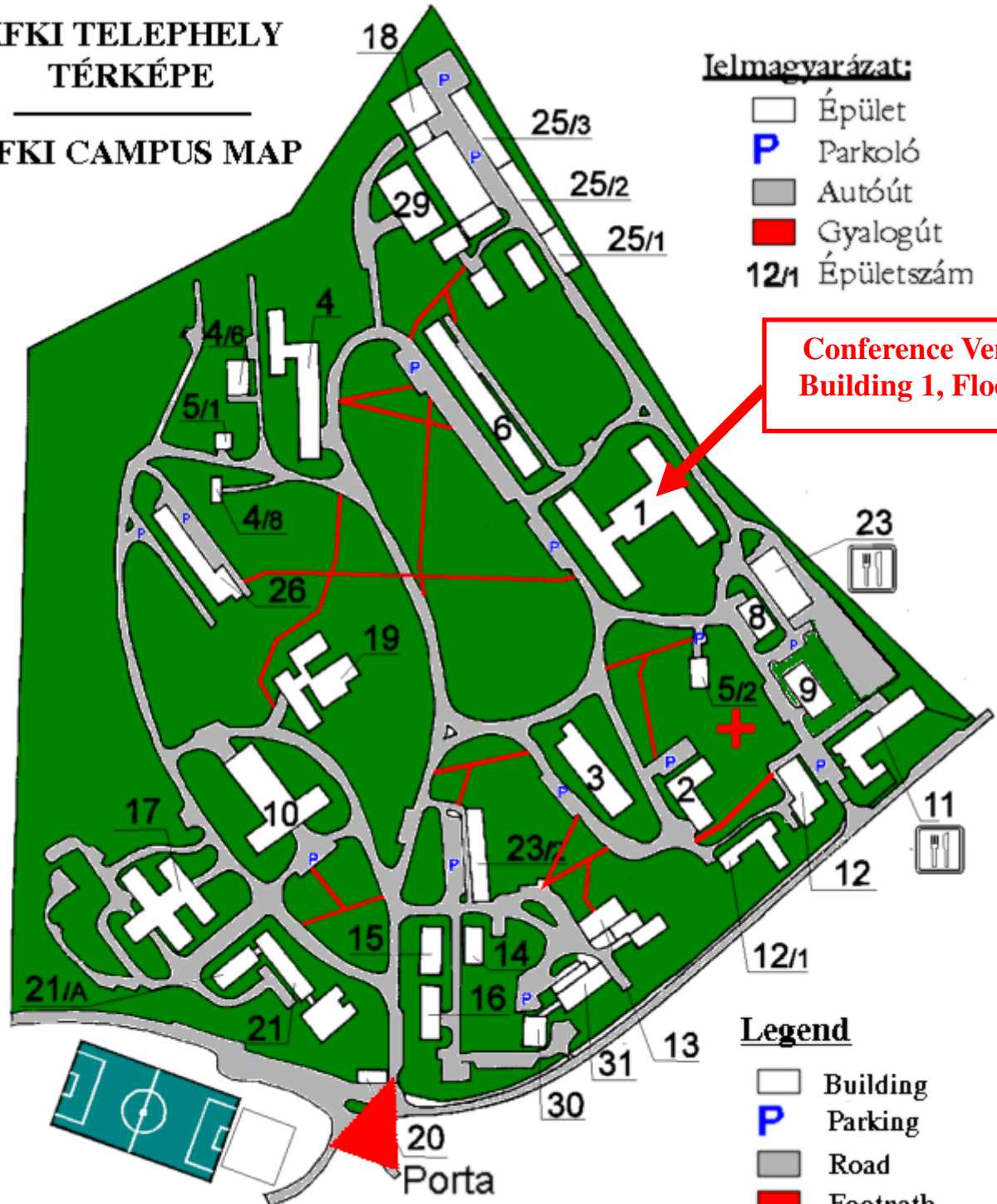
KFKI Campus and Building 1

Conference Venue

The conference will take place in the Meeting Room (Building 1, first floor) at the Wigner Research Centre for Physics (Wigner RCP) in Budapest, Hungary (see map below).

Address: Wigner RCP of the HAS
29-33 Konkoly-Thege Miklós Str
H-1121, Budapest, Hungary

**KFKI TELEPHELY
 TÉRKÉPE**
KFKI CAMPUS MAP



Ielmagyarázat:

- Épület
- P Parkoló
- Autóút
- Gyalogút
- 12/1 Épületszám

**Conference Venue
 Building 1, Floor 1**

Legend

- Building
- P Parking
- Road
- Footpath
- 12/1 Building N^o
- ▲ Main entrance

KFKI Campus Map

Registration

The conference registration will be on 3rd September 2012 (Monday) from 8:30 to 9:30 at the conference venue. It is located in the Wigner RCP SzFI, Building 1, 1st floor within the KFKI Campus (see map above).

Important note: Please, take your time for entering to the KFKI Campus, since each day you will arrive to the KFKI Campus you need to get a daily pass. This might take longer time in case of multiple guests. You have to keep the pass card, because without that you can not leave the KFKI Campus.

Without valid ID or passport, there is no way to get into the campus!

Internet Access

Wireless internet is available for free in the meeting room. The easiest way is through **Eduroam**, which you should set up at your own university/institute before you leave. But other access will be available.

Food & Drinks

Coffee, soft drinks, and cookies will be served during coffee breaks. Lunches (cold meals and drinks) will be provided free of charge as well.

Important note: no food and drinks allowed in the meeting room!

Accommodation

Accommodations are located near to *Normafa*, the terminal of bus No. 21A, on line of the bus 21. You can reach the workshop venue taking the bus to the direction "KFKI Csillebérc" it takes about 5 minutes by bus (or 20 minutes walking).

Web pages for the accommodations:

Hotel Normafa:

<http://normafahotel.com/?lang=en&mid=0>

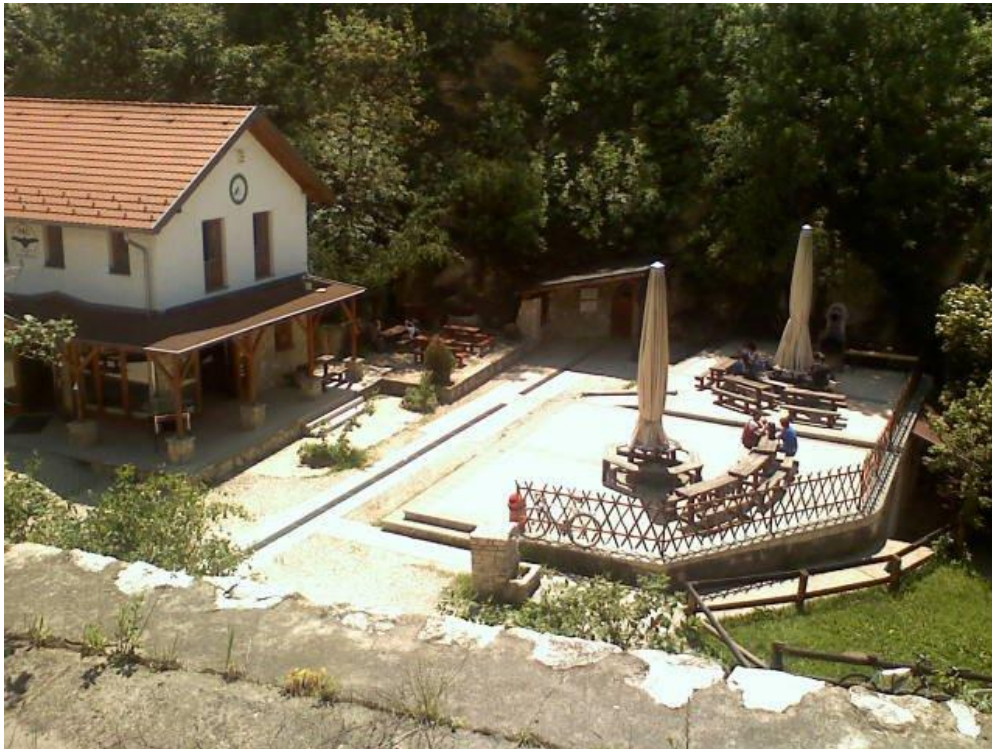
Youth Hostel Csillebérc (Csillebérci Ifjúsági Szálló - only in Hungarian - we are sorry):

<http://www.csilleberciszabadido.hu/>

http://www.csilleberciszabadido.hu/images/terkep/nagy/csilleberc_terkep.jpg

Social Event

The social event of the conference will take place at the garden around the entrance of the Pál-völgyi-Mátyás-hegyi cave system, on Wednesday afternoon/evening, 5th September.



Pál söröző és barlangterasz

Location

The Pál pub and the garden are located in the 2nd district of Budapest, Szépvölgyi street 162. The entrance is a wooden gate at the corner of Szépvölgyi and Virág Benedek streets.

Transfer: Participants from conference site to Pál pub will be transferred with special buses. Details will be announced during the conference.

Arrival by public transport: take bus No. 65 from Kolosy tér till the Pál-völgyi-cseppkőbarlang stop.

Arrival by car: you can park for free in the neighbouring streets, and there is a gravel parking lot right across the Szépvölgyi street

Dinner

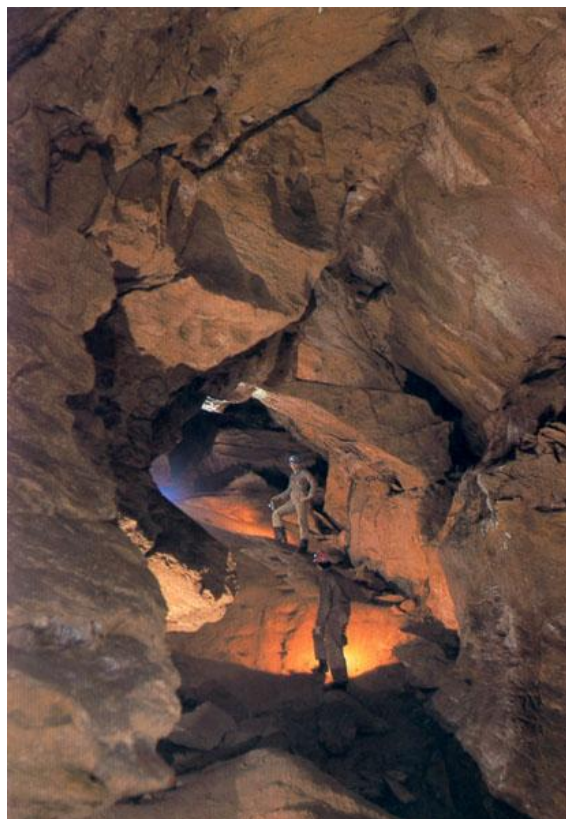
All conference participants are welcomed to the bográcsgulyás, which is free. A free welcome drink is included. You can order other beverages for fee in the Pál pub.

Tour in the Mátyás-hegyi cave

For more active and brave participants who are not claustrophobic, will have an opportunity to visit the nearby Mátyás-hegyi cave during the afternoon (before dinner). It is a natural, unbuilt cave without concrete pathways and fixed lights. Though the tour does not require any special skills, we will crawl, scramble and creep through tight parts and climb over piles of rocks many times with no more light than our headlamps. The tour will be 1-2 hours long, and supervised by professional

caver guides. We strongly advise to bring clothes unworthy enough to get dirty and scratched and are easy to move in. (Plus another set of clean clothing to change after the tour.) Footwear should be also comfortable, like sportshoes or hiking boots, and allowed to get dirty. The visited parts of the cave are dry, but often covered with clay. We can provide overalls, safety helmets, and headlamps for you.

You can find out more about the cave: <http://caving.hu/>



Tour in the Mátyás Cave

LIST OF PARTICIPANTS

SOC/LOC

Surname	First name	Country	Affiliation	E-mail
Barnaföldi	Gergely Gábor	Hungary	Wigner RPC, HAS, Budapest	barnafoldi.gergely@wigner.mta.hu
Forgács-Dajka	Emese	Hungary	Eötvös University, Budapest	e.forgacs-dajka@astro.elte.hu
Kiss	Csaba	Hungary	University of Vienna, Austria Konkoly Observatory, Budapest	pkisscs@konkoly.hu
Verebélyi	Erika	Hungary	Eötvös University, Budapest	everebelyi@astro.elte.hu

Keynote speakers

Surname	First name	Country	Affiliation	E-mail
Ballai	István	United Kingdom	University of Sheffield, United Kingdom	i.ballai@sheffield.ac.uk
Csabai	István	Hungary	Eötvös University, Budapest	csabai@elte.hu
Csizmadia	Szilárd	Germany	Institute of Planetary Research, German Aerospace Center, Germany	szilard.csizmadia@dlr.de
Kiss	Csaba	Hungary	Konkoly Observatory, Budapest	pkisscs@konkoly.hu
Könyves	Vera	France	IAS/Orsay - SAP, CEA/Saclay	vera.konyves@cea.fr
Kóvári	Zsolt	Hungary	Konkoly Observatory, Budapest	kovari@konkoly.hu
Rácz	István	Hungary	Wigner RPC, HAS, Budapest	istvan.racz@wigner.mta.hu
Süli	Áron	Austria	University of Vienna, Austria	a.suli@astro.elte.hu
Thissen	Roland	France	l'Institut de Planétologie et d'Astrophysique de Grenoble	Roland.thissen@obs.ujf-grenoble.fr

Participants

Surname	First name	Country	Affiliation	E-mail
Almohammad	Abdalla	Jordan	Al-Balqa' Applied University	aseel_00@yahoo.com
Aramyan	Levon	Armenia	Byurakan Astrophysical Observatory	levonaramyan@gmail.com
Barnaföldi	Gergely Gábor	Hungary	Wigner RPC, HAS, Budapest	barnafoldi.gergely@wigner.mta.hu
Barta	Dániel	Hungary	Eötvös University, Budapest	barta.bdaniel@gmail.com
Barta	Veronika	Hungary	Research Centre for Astronomy and Earth Sciences, GGI, Hungarian Academy of Sciences, Sopron	bartav@ggki.hu
Bazsó	Ákos	Austria	University of Vienna	akos.bazso@univie.ac.at
Belucz	Bernadett	Hungary	Eötvös University, Budapest	bbelucz@astro.elte.hu
Benazzo	Piero	Italy		pierobnz@gmail.com
Borkovits	Tamás	Hungary	Baja Astronomical Observatory, Baja; Konkoly Observatory, Budapest; ELTE-GAO Lendület Group, Szombathely	borko@electra.bajaobs.hu
Constantin	Diana	Romania	Astronomical Institute of the Romanian Academy	diana@aira.astro.ro
Debreczeni	Gergely	Hungary	Wigner RPC, HAS, Budapest	Debreczeni.Gergely@wigner.mta.hu
Deshmukh	Nikit	India	The Maharaja Sayajirao University of Baroda	nikitdesh@yahoo.com
Dobos	Vera	Hungary	Eötvös University, Budapest	v.dobos@astro.elte.hu
Dwornik	Marek	Hungary	University of Szeged	marek@titan.physx.u-szeged.hu
Facskó	Gábor István	Finland	Finnish Meteorological Institute	gabor.facsko@fmi.fi
Fogasy	Judit	Hungary	Eötvös University, Budapest	fogasyjudit@caesar.elte.hu
Gabányi	Krisztina	Hungary	Konkoly Observatory, Budapest	krisztina.g@gmail.com
Galiazzo	Mattia	Austria	Institute of Astronomy, University of Vienna	mattia.galiazzo@gmail.com
Gmélly	Katalin	Hungary	Wigner RPC, HAS, Budapest	gmelly@iki.kfki.hu
Horváth	Zsolt	Hungary	University of Szeged	zshorvath@titan.physx.u-szeged.hu
Kereszturi	Ákos	Hungary	Konkoly Observatory, Budapest	kereszturi.akos@csfk.mta.hu
Klagyivik	Péter	Hungary	Konkoly Observatory, Budapest	klagyivik@konkoly.hu
Kóbori	József	Hungary	Eötvös University, Budapest	jkobori@caesar.elte.hu
Kovács	András	Hungary	Eötvös University, Budapest	andraspankasz@gmail.com
Kriskovics	Levente	Hungary	Konkoly Observatory, Budapest	kriskovics@konkoly.hu
Kun	Emma	Hungary	University of Szeged	kun@titan.physx.u-szeged.hu

Surname	First name	Country	Affiliation	E-mail
Lukács	Katalin	Hungary	Wigner RPC, HAS, Budapest	lukacs.katalin@wigner.mta.hu
Maindl	Thomas I.	Austria	University of Vienna	thomas.maindl@univie.ac.at
Marschalkó	Gábor	Hungary	Eötvös University, Budapest	G.Marschalko@astro.elte.hu
Marton	Gábor	Hungary	Konkoly Observatory, Budapest	marton.gabor@csfk.mta.hu
Molnár	László	Hungary	Konkoly Observatory, Budapest	lmolnar@konkoly.hu
Nagy	Melinda	Hungary	Eötvös University, Budapest	nagygmelinda@gmail.com
Nagy	Máté Ferenc	Hungary	Wigner RPC, HAS, Budapest	nagy.mate@wigner.mta.hu
Nagy	Imre	Hungary	Eötvös University, Budapest	i.nagy@astro.elte.hu
Pál	András	Hungary	Konkoly Observatory, Budapest	apal@szofi.elte.hu
Petrik	Kristian	Slovakia	Institute of Physics, Slovak Academy of Sciences	kristian.petrik@savba.sk
Pintér-Rajnai	Renáta	Hungary	Eötvös University, Budapest	R.Rajnai@astro.elte.hu
Plachy	Emese	Hungary	Eötvös University, Budapest	eplachy@astro.elte.hu
Rogozin	Dmytro	Ukraine	Taras Shevchenko National University of Kyiv	Rogozin_D@ukr.net
Szalai	Tamás	Hungary	Dept. of Optics and Quantum Electronics, University of Szeged	szaszi@titan.physx.u-szeged.hu
Szalai	Zoltán	Hungary	Geophysical Research Institute	szalai.zoltan@csfk.mta.hu
Szegedi-Elek	Elza	Hungary	Konkoly Observatory, Budapest	eelza@konkoly.hu
Tápai	Márton	Hungary	University of Szeged	tapai@titan.physx.u-szeged.hu
Tóth	Zsuzsanna	Germany	University of Bremen	zsuzsanna.toth@gmail.com
Varga	József	Hungary	Eötvös University, Budapest	jozsef-varga@caesar.elte.hu
Verebélyi	Erika	Hungary	Eötvös University, Budapest	everebelyi@astro.elte.hu
Vida	Krisztián	Hungary	Konkoly Observatory, Budapest	vidakris@konkoly.hu
Zahorecz	Sarolta	Hungary	Eötvös University, Budapest	S.Zahorecz@astro.elte.hu

Guests

Surname	First name	Country	Affiliation	E-mail
Ábrahám	Péter	Hungary	Konkoly Observatory, Budapest	abraham@konkoly.hu
Csorba	Dániel	Hungary	Eötvös University, Budapest	chipa.cs.d@gmail.com
Dálya	Gergely	Hungary		dalyag@freemail.hu
Érdi	Bálint	Hungary	Eötvös University, Budapest	b.erd@astro.elte.hu
Frey	Sándor	Hungary	Institute of Geodesy, Cartography and Remote Sensing, Satellite Geodetic Observatory	frey@sgo.fomi.hu
Góbi	Sándor	Hungary	Konkoly Observatory, Budapest	sandor.gobi@gmail.com
Kun	Mária	Hungary	Konkoly Observatory, Budapest	kun@konkoly.hu
Petrovay	Kristóf	Hungary	Eötvös University, Budapest	k.petrovay@astro.elte.hu
Szabados	László	Hungary	Konkoly Observatory, Budapest	szabados@konkoly.hu
Szing	Attila	Hungary	Konkoly Observatory, Budapest	szing@konkoly.hu