

HUN-REN Research Centre for Astronomy and Earth Sciences
Konkoly Thege Miklós Astronomical Institute

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2024/1. Director's Decree

**Operating rules of the Piszkestető Mountain Station
of the HUN-REN Research Centre for Astronomy and Earth Sciences**

The HUN-REN Research Centre for Astronomy and Earth Sciences Astronomical Institute currently operates

- a 1-meter RCC telescope,
- a 80-cm RC telescope,
- a 60-cm Schmidt-telescope,
- a Fly's Eye camera system
- satellite receivers,
- meteor and weather monitoring cameras

at the Piszkestető Mountain Station. In addition, it hosts infrasound detectors and seismology stations operated by the HUN-REN Institute of Earth Physics and Space Science.

The 1-m telescope is open to researchers from all astronomical research institutions in Hungary and foreign researchers working in cooperation with these institutions, for the full time and the 80-cm telescope for 50% of the time. The other instruments and cameras run dedicated research programmes.

1. Site operation

The Observatory is operated by the Astronomical Institute of the HUN-REN Research Centre for Astronomy and Earth Sciences. The daily operation of the telescopes is carried out by the observers who won telescope time and by the astronomers on duty on the given week. Assigning observers to project telescopes week by week is the responsibility of the project leaders or may be arranged with the help of the astronomers on duty by case-by-case agreements. The tasks related to instrument control and IT are carried out by designated staff. Technical maintenance is carried out by a technical team under the direction of the Technical Director. The operation of the site is assisted by janitors and maintenance staff under the direction of the Technical Director. The activities of the researchers and scientific teams operating the research infrastructures are subject to the same rules and regulations as the HUN-REN Research Centre for Astronomy and Earth Sciences as a whole.

2. Telescope time application

Applications for the available instruments can be submitted via the online application form, three times a year for four-month periods. In addition to the expected scientific value, feasibility is an important criterion for the evaluation of the submitted proposals.

The application process consists of two stages. In the first round, an online telescope time request form must be filled in, specifying the number of nights requested for each telescope. The applications are evaluated by a three-member Telescope Time Allocation Committee (consisting of the Director, the Site Manager, and an additional researcher), which recommends the telescope time to be allocated to each programme. In addition to the submitted application, the evaluation will also consider the effective use of previously awarded telescope time. Applications for the remaining vacant weeks – if there are any – will be accepted on a continuous basis. There are three types of observing modes of the available telescopes:

1. **Classical programmes (C-programmes)** run in weekly time units and typically involve all-night measurements (taking time series continuously or short time-series of rapidly changing objects, imaging, observations to discover new objects). C-programmes may require periods of one week from Thursday to Thursday.

2. Programmes that require **queue-mode (Q-programmes)** typically require relatively short time per night, often extending over several months, rather than an entire night's measurement (young stars, supernovae, follow-up astrometry and photometry of newly discovered celestial bodies). Transit measurements of exoplanets require predictable times in advance and rarely reach the time requirements of a classical programme (i.e. full night-long measurements for a week). Q programmes, on the other hand, can apply for telescope time in units of hours.

For the 80-cm RC telescope only Q-programs can be suggested. Targets must be assigned a priority number of 1 or 2, where 1 indicates a more important target. For special reasons, a priority of 0 may be requested for some targets. Detailed justification for this should be provided for each object separately in the relevant section of the application form. Examples of special cases include participation in an international space telescope observing campaign, or the detection of a one-off, time-critical phenomenon (e.g. occultation of a minor planet), or other similar events. The final priority numbers will be set by the Telescope Time Allocation Committee and any subsequent proposals for changes should be addressed to the Committee.

3. ToO (Target of Opportunity) programs can also be submitted for the telescopes, especially for events occurring at times not known beforehand (special transients, new or recently calculated exoplanet transits or minor planet occultations, etc.), but measurements on the night in question are only possible if the request is received by the Committee at least 4 hours before the end of nautical twilight.

3. Acknowledgements

1. The upgrade of the 1-m RCC telescope (which concluded in autumn 2014) was greatly helped by András Pál's Lendület project. All colleagues are kindly requested to include the following acknowledgement in any publications based on measurements made with any detector after 2 October 2014:

"This project has been supported by the Lendület grant LP2012-31 of the Hungarian Academy of Sciences."

When publishing data collected with the spectrograph, it is expected that the colleague(s) who made the measurements possible will be listed as co-authors. Consultations with András Pál, group leader, and the assistants who made the measurements are requested before submitting the publication.

For data collected with the EMCCD, please acknowledge the software development efforts of Zsolt Regály, after consulting with him.

2. Please include the following sentence in the acknowledgements of publications using the 80-cm RC robotic telescope:

"The operation of the RC80 telescope at Konkoly Observatory has been supported by the GINOP 2.3.2-15-2016-00033 grant of the National Research, Development and Innovation Office (NKFIH) funded by the European Union."

3. In all publications based on observations made between June 2017 and January 2020 with the 60-cm Schmidt telescope and the 4k x 4k CCD installed with the support of the GINOP-2.3.2-15-2016-00003 project "Cosmic Impacts and Risks", please include the following sentence in the official acknowledgements:

"This project has been supported by the GINOP-2.3.2-15-2016-00003 grant of the Hungarian National Research, Development and Innovation Office (NKFIH)".

In papers produced between March 2018 and January 2020 from Q-program measurements, we ask that László Mészáros and András Pál, who worked on the refurbishment of the Schmidt telescope, be given equal status with the observers.

Budapest, 14 March 2023



Szabó Róbert
director

CSFK