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# Beam time request rules

**HUN-REN ATOMKI Accelerator Center** 

Approved:

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Director

Effective: 01.05.2024

This document summarises the availability rules to the HUN-REN ATOMKI particle accelerators by 1 May 2024.

#### I. Particle accelerators

The following accelerators are currently operating at ATOMKI under the management of the Accelerator Center:

- Cyclotron MGC-20
- Tandetron 2.0 MV
- ECR ion source (ECRIS)
- Van de Graaff generator (VDG-1)

The service price of the above accelerators for the current year is calculated by cost calculation and by post-calculation based on the financial data of the previous two fiscal years and also by the provided operating times. The cost method refers to the method of recording direct costs and allocating indirect overheads.

- Direct cost part: direct costs necessary for the supply of the beam, utility charges, consumables, maintenance, radiation protection, operators' wages, contributions, etc.
- Indirect costs: for general expenses not directly incurred by the institute, the projection fund is 17%.

Prices for the current year's beam time shall be issued each year by director's order after the financial closing of the previous year. Current prices will be published on the website.

Being not part of the present rules, but, as informative aspect, the 2024 prices are the following:

Accelerator names	Beamtime price (kHUF per hour)
Cyclotron MGC-20	85
Tandetron 2.0 MV	50
ECR ion source (ECRIS)	85
Van de Graaff generator (VdG-1)	30

Hourly rates include only beam generation costs. In the case of irradiation requiring research/technician support, their costs are added to this.

A discount on hourly rates may be determined by the director. The discount can be any between 0 to 100%.

The following criteria shall be taken into account in determining the discount:

- is the proposed measurement fundamental research.
- in case of external participants, the nature of the existing cooperation with ATOMKI.
- other resources already available for the planned measurement.

alignment with the plan of ATOMKI strategy, or novel research direction.

#### II. Beamtime requesting

We accept three types of requests:

- 1. General beam time requests for half-year. Twice a year (usually in July and in December), the Program Advisory Committee (PAC) publishes a public invitation to submit beamtime requests by e-mail ("Call for Proposals"). Requests for the next semester must be submitted by both external and internal users, as well as by consortia, by projects, contracted with ATOMKI. Instead of summarizing requests, please break down requests into coherent topics. Exceptions are ordered series of irradiations by third parties or measurements based on a contract (e.g. in Transnational Access framework). Requests, lasting a few hours, which are thematically and justifiably identical, and which can be managed in a common financial construction, can be combined.
- 2. Requests for extended beam time: if the permitted beamtime hours limit is insufficient during the semester, users may request an increase of it. However, the availability of accelerators and measuring equipment may already be limited due to previously permitted and reserved machine times.
- 3. New applications: if justified, requests for beam time or equipment use can be made during the semester. Such requests will be dealt with urgency. However, equipment availability may still be limited.

In order to gain access to accelerators and research equipment, each user must fill out an online form available on the PAC website: <a href="https://atomki.hu/PAC">https://atomki.hu/PAC</a>.

During the filling process, technical data and needs must be agreed with the person responsible for the beamline end to be used (beamline host). It is also with him that other conditions of use should be clarified. A list of available beamline ends and their hosts are provided as an annex in the semi-annual notices. If otherwise submitted, this list can be requested by e-mail from the PAC. The PAC will only consider the request if the beamline host agreed the request in an email statement. This opinion shall be requested by the PAC Secretary from the beamline host, prior to the PAC meeting (unless the applicant and the beamline host are the same person).

After filling out the form, one can finalize your request on the PAC website by pressing the SUBMIT button. A pdf document is created from the entered data and sent to the applicant and to the PAC members. Once this email is received, the requester can be assured that the beamtime request has also been delivered to the PAC. If the requestor does not receive such an email (within a reasonable time), the request (completion and submission of the form) must be repeated or the PAC or the local contact person must be contacted directly. External users (regardless of whether they are Hungarian or foreign) must establish a relationship beforehand with a researcher working at ATOMKI or with the host of the equipment (beamline end) to be used. If the role of the external partner in the measurement is decisive, he should be the person submitting the request as an external user and the ATOMKI partner should be the contact person on the form. During paid measurements, the contact person is responsible for the administration of the quotation, the ordering and for the managing of the invoicing.

## III. Judging of beam time requests

Beam time requests are reviewed by the Program Advisory Committee (PAC). If necessary, it may ask the applicant to rectify deficiencies in writing or to make oral additions. The PAC shall evaluate the applications and propose the beam time that may be granted and the amount of possible discount, and shall forward its proposal to the Director. In the case of Type 1 applications, a table of the Director's decision shall be drawn up and issued in the form of a Director's Order. Type 2 and Type 3 applications are assessed individually by the Director on a proposal from the PAC. A response to the decision will be sent within 30 days by e-mail to the applicant and to the host of the respective equipment. Upon special request and in urgent cases, the PAC may examine the application in an out-of-turn, rapid procedure, but this is only possible if there are spare capacities and preferably requires personal administration.

In possession of an approved beam time, the requester agrees the exact details and timing of the use of the accelerator and beamline end with the accelerator operation engineer, with the beamline host and with the local contact person. For internal (ATOMKI) users, in the case Cyclotron, Tandetron and ECR accelerators, it is possible to reserve beam time using the "Calendar" function of the Zimbra email client.

The head of the Accelerator Centre shall keep records of beam time usage, planned and actual data, which he shall send to the Finance and Accounting Department by the 15th of each month. He shall inform the director and financial manager of the annual consumption data in the form of a report.

### IV. Final provision

This Rules enters into force on 01 May 2024 and is valid until withdrawn.

After its entry into force, its provisions shall be mandatory for all entities within an organization. Simultaneously with these regulations, all previous regulations issued in ATOMKI in this field will be revoked and will cease to be valid. This policy is published electronically and is available electronically on the website of ATOMKI.

HUN-REN ATOMMAGKUTATÓ INTÉZET

Debrecen, 17 April 2024.

Zsolt Dombrádi Director Erzsébet Csörgőné Molnár Financial Manager

Sándor Biri Accelerator Center Chief Ferenc Ditrói Program Advisory Committee Chair