Welcome to the Wigner Research Centre for Physics

Information booklet for new colleagues
<table>
<thead>
<tr>
<th>Contents</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel hints</td>
<td>p. 2</td>
</tr>
<tr>
<td>How to get there</td>
<td>p. 3</td>
</tr>
<tr>
<td>Entry procedure</td>
<td>p. 4</td>
</tr>
<tr>
<td>Campus map</td>
<td>p. 5</td>
</tr>
<tr>
<td>Useful contacts</td>
<td>p. 6</td>
</tr>
<tr>
<td>Work regime</td>
<td>p. 7</td>
</tr>
<tr>
<td>Document server</td>
<td>p. 7</td>
</tr>
<tr>
<td>Important contacts</td>
<td>p. 8</td>
</tr>
<tr>
<td>Medical station</td>
<td>p. 9</td>
</tr>
<tr>
<td>Occupational safety and health care</td>
<td>p. 9</td>
</tr>
<tr>
<td>Library</td>
<td>p. 10</td>
</tr>
<tr>
<td>Computer Network Center</td>
<td>p. 10</td>
</tr>
<tr>
<td>Restaurants</td>
<td>p. 11</td>
</tr>
<tr>
<td>Bank, post office</td>
<td>p. 11</td>
</tr>
<tr>
<td>Wigner RCP: history</td>
<td>p. 12</td>
</tr>
<tr>
<td>Our eponym: E.P. Wigner</td>
<td>p. 13</td>
</tr>
<tr>
<td>Institute for Particle and Nuclear Physics</td>
<td>p. 14</td>
</tr>
<tr>
<td>Institute for Solid State Physics and Optics</td>
<td>p. 15</td>
</tr>
<tr>
<td>Structure of the Institute for Particle and Nuclear Physics</td>
<td>p. 16</td>
</tr>
<tr>
<td>Structure of the Institute for Solid State Physics and Optics</td>
<td>p. 17</td>
</tr>
<tr>
<td>Wigner Datacenter</td>
<td>p. 18</td>
</tr>
<tr>
<td>The campus</td>
<td>p. 19</td>
</tr>
<tr>
<td>Sport, recreation</td>
<td>p. 20</td>
</tr>
<tr>
<td>Local events</td>
<td>p. 21</td>
</tr>
<tr>
<td>Family care</td>
<td>p. 21</td>
</tr>
<tr>
<td>Useful websites</td>
<td>p. 22</td>
</tr>
</tbody>
</table>
1.) With bus 200E go to Népliget Station.
2.) Take subway line M3 to Deák tér.
3.) Change to subway line M2 and go to Déli pu, terminus.
4.) Take bus 21 until its terminus, Csillébérc- KFKI.
How to get there?

**From Széll Kálmán Square or Déli pu.**
Take Bus 21 until Csillebérc- KFKI, terminus.

**From Boráros Sq. or from Budaörsi Ave.**
with Bus 212 until Svábhegy, terminus. Change for Bus 21 until Csillebérc- KFKI, terminus.

**KFKI shuttle bus**
Free shuttle buses are available from Széll Kálmán Sq. and Kosztolányi Dezső Sq. Those are white buses with a sign „KFKI különjárat”. They follow the lines of Buses 21 and 212 and stop at their bus stops if you wave your hand.

**Timetable:**
To KFKI Monday-Friday:
- From Széll Kálmán Sq. 6.20, 6.40, 6.50, 7.00, 7.30, 8.15
- From Kosztolányi Sq. 7.00

From KFKI:
- To Széll Kálmán Sq. Monday-Thursday: 16.05, 16.10, 17.30  Friday: 13.40, 15.15
- To Kosztolányi Sq. Monday-Thursday: 16.05  Friday: 15.15

In the morning between 5:30 - 8:00 colleagues with entry cards can enter through the upper gate (Bus stop “KFKI étterem”), but one cannot leave there.
Temporary and fixed entry cards:

Temporary and permanent entry card: Your group leader or department head will provide entry card, local phone number, e-mail address, keys, internet access through the Administration of the Wigner RCP.

If an entry card is lost or stolen, you must inform the security guards as soon as possible to invalidate the card. If you want to stay on campus after 21 hours, please inform the security guards by phone, and give your name, your department and the number of the building where you work.

Entry information:

Entry is possible via the Reception where visitors receive an entry card. For that an ID card, driving license, passport, or student card with a photo is needed. Children under the age of 14 CANNOT visit the KFKI Campus.

Visitors with a car may ask for an entry card validated for their cars at the reception. With the car only the driver can enter the campus, the passengers have to get off and pass the reception. The same rule is valid for leaving the site.
Useful contacts

**Central contacts:**
Central phone number: +36 1 392 2222  
Address: Konkoly-Thege M. str., 29-33.  
Website: https://wigner.hu/  
Operator Ltd.: https://kfki.hu/  
(with the campus phonebook)

**Wigner RCP Secretary:**  
Office: Building 3, Floor 1, Room 111  
Secretary: Ildikó FAZEKAS  
Email: titkarsag@wigner.hu  
Phone: Ext. 1126, 2512  
(from outside: +36 1 392 2512)

RMI Secretary: Éva OSVÁTH Phone: Ext.:1787  
SZFI Secretary: Éva FÜZI Phone: 2768

**Wigner RCP Finance Department:**  
Department: Building 3, Floor 2  
Contacts: https://wigner.hu/en/financial-unit

**Security Guard:**  
Reception: Ext.: 1187  
In case of emergency (0-24): Ext.: 1155 and 2432

**Medical station, first aid:**  
Ext.: 1445

**National emergency number:** 112
Administration

The Administration System is available from the Intranet (on the wigner.hu website) or directly: https://ugyint.wigner.hu/login.php

Six functions are available in the intranet web page (https://wigner.hu/) of the Administration System: daily work register, material procurement, holiday requests, traveling administration, access registration, and report submission.

Accesses:
The Group/Department Leaders can ask new accesses like entry card, permission for entry with car, e-mail address, internet access.

Daily work time registration:
You have to register the daily work activity on this site, the Group Leader certify at the end of every month.

Material Procurement:
Every order have to register in this system. The procurement can start only if the Group/Department Leader permits it, and the orderer receives an e-mail about it. The payment of the bills can also start if the procurement is registered in this system.

Holidays:
You can ask the permission of holidays in this system. The Group/Department Leader permits it and the system send an e-mail about it.

Document Server

Most important regulations, documents, forms are on this site. The Document Server is available on the Intranet System (on wigner.hu)
**Secretary of the Director General:**

The Secretariat is in Building 3, 1st floor, Room 111. They help in administrative problems, you find here the keys to the meeting rooms, and you can submit documents to be signed here. The secretary can schedule meetings to the DG.

Secretary: Ildikó FAZEKAS, ext. 2512. E-mail: titkarsag@wigner.hu

Secretary of the Institute of Particle and Nuclear Physics: Éva OSVÁTH Building 3, Room 111, ext. 1787.
Secretary of Institute of Solid State Physics and Optics: Éva FÚZI Building 1, Room 6, ext. 2768

**Communication Advisor:**

Csilla DOVICSIN-PÉNTEK - Building 3, room 111, phone: +36 30/487 9869 e-mail: pentek.csilla@wigner.hu, kommunikacio@wigner.hu

The Communication Advisor is responsible for the mainpart of the internal and external communication of the Wigner RCP. She can help in the communication with the media, the Eötvös Loránd Research Network and the Hungarian Academy of Sciences. They coordinates the publication of the news on the wigner.hu website and help in the publication on the elkh.org or the mta.hu website. Communication Advisor can help in design some brochures and posters, organization of events and visits, in the questions about the brand of the Wigner RCP and PR materials.

**Scientific Advisor:**

Szilvia POTHOZCKI – Building 1, room 201, phone:+36 1 392 2222, 1469 extension e-mail: pothoczki.szilvia@wigner.hu

The Scientific Advisor help of the DG and other directors to keep contact with Eötvös Loránd Research Network, the Hungarian Academy of Sciences, other science institutes in Hungary and in other countries and with universities. She helps the researchers with the administration in scientific work and keep the connected registers up to date. She can help in some tenders, like job applications and institutional grants.
Medical Station

The medical station is located in Building 5/2. Pre-employment examinations and other obligatory and screening check-ups are made here.

**Physician:**
Dr. András Iván MATKÓ, MD.

**Occupational Health Assistant:**
Gabriella CSEPREGY

**Consultation hours:**
Tuesday, Thursday: 8:00-12:00
On Monday, Wednesday, and Thursday the occupational health assistant is available.

Phone: +36 1 392-2580
Mobile phone: +36 70 881-1764
Local ext. 1445

---

Occupational health and safety, radiation safety

Occupational health and safety (OHS), radiation safety OHS education is obligatory for every employee. Courses are coordinated by Szabina Sztakó (KFKI operator)

Pre-registration for the course:
Phone: ext. 2608, mobile: +36 70 941 1047

The radiation safety officer of Wigner RCP is Csilla BOGDÁN KOVÁCSNÉ, Building 3, Office 227 Phone: 1706, 3449, e-mail: bogdan.csilla@wigner.hu
**Contact:** The KFKI Library is in Building 4, Floor 1. Phone ext. 1404, E-mail: lib@wigner.hu.

**Website:** www.kfki.hu/konyvtar/

**Opening hours:**

- Monday - Thursday:  9 - 15.45
- Friday:               9 - 14.30

The Library was founded in 1953. The core of the current library formed the basis of the stocks of smaller department libraries which were merged to establish a unified, professional library in 1960. We are the common research library for the Wigner Research Centre for Physics and the Centre for Energy Research. It also serves as the home library for the physical science in Hungary. It offers physics and materials science collections and also selections in chemistry, computer science and mathematics. The access to the Library is limited to campus employees, but guest users are also welcome.

**Computer Network Center**

The main tasks of the CNC are the operation and development of the local network of the KFKI Campus, operation and development to the connection of the network of the Hungarian research and higher education (NIIFHBONE), development of other systems and giving network and informational services.

The colleagues of the CNC can help in problems with e-mail addresses, internet connection, servers of the KFKI campu and websites etc.

**Contact:** Building 14, ext. 1342, +36 1 392 2504

**Website:** wigner.hu/en/infrastructure
Restaurants

Salad Bar
This campus restaurant is located in Building 23.
Open: 7.00-13.00 (closed 8.15 – 10.45)
More information: www.kfki.hu/content/etlap/salatabar

FH Gasztro:
This restaurant is located in Building 11.
Open: 7.00-14.00
More information: www.kfki.hu/content/etlap/fhgasztro

Vending machines:
Coffee machines are in building 1, 4 and 26 and at the reception.
Chocolate machines are in building 4 and at the reception.

Bank, Post Station

ATM:
There is an OTP ATM outside the main entrance of the KFKI campus.

Post Station:
Official letters should be sent through departments.
The nearest Post Station is in 1 Normafa street or at the Déli Railway Station, in front of the Metro Station.
History of the Wigner RCP

KFKI
Central Research Institute for Physics

1950

1992

2012 (14)

2019

KFKI RMKI
Institute for Particle and Nuclear Physics

SZFKI
Institute for Solid State Physics and Optics

KFKI AEKI
Institute for Nuclear Research

IKI
Institute for Isotope Research

MFA
Technical Physics and Material Science

HAS
WIGNER Research Centre for Physics

Centre for Energy Research (ELKH)

WIGNER Research Centre for Physics (ELKH)

HAS Centre for Energy Research
Eugene Paul Wigner (1902-1995) Nobel-laureate physicist

He graduated in the Fasor Lutheran High School, where two determinative teachers started him in his career, László Rátz, teacher of mathematics, and Sándor Mikola, teacher of physics. At the request of his father he enrolled at the Budapest University of Technology, Faculty of Chemical Engineering, but after half a year he continued his chemical engineering studies at the Berlin Technische Hochschule. Although he studied chemistry, he was interested in physics all along. By combining the chemist and the physicist in himself, Wigner played a pioneering role in the creation of plutonium production. He calculated and designed the world's first atomic reactor, and he also designed the first water-cooled nuclear reactors. He was the first who proposed the using of water, too, to ensure the safety of slowing down the neutrons. Now he is considered the world's first nuclear reactor engineer.

In 1963 he received a shared Nobel Prize in Physics „for contributing to the theory of atomic nuclei and elementary particles, particularly through the discovery and application of the fundamental symmetry principles“. The HAS founded a prize in 1999, which is awarded each year for researchers, who created something lasting in the field of nuclear energy and Hungarian physics.

“If science is expected to grow so great, both in the comprehensiveness of its subject and also in depth, that the human mind will not be able to embrace it, that the life span of man will not be long enough to penetrate to its fringes in time to enlarge it, could several people not form a team and accomplish jointly what no single person can accomplish? Instead of returning with Shaw to Methuselah, can we find a new way to enlarge the capacity of human intellect by the juxtaposition of several individual intellects rather than by extending a single one?”

E.P. Wigner: The Limits of Science, 1950
The Institute for Particle- and Nuclear Physics make research in particle and nuclear physics, gravitation research, space physics, nuclear solid-state physics and material science, neurosciences and complex systems. The development activities of the institute are in laser physics, nuclear analytics, space technology, high-speed data processing, some spectroscopies, electrical, mechanical and information technology devices serving special needs, neurorehabilitation systems and different type of softvers. Their researchers work in more international projects, in some of these, they coordinate the Hungarian participation. The operation and development of more big equipment are also part of the roles of the institute, like EG-2R accelerator and the NIK heavy-ion implanter, the MBE molecule beam epitaxia, the GRID system and other high capacity computers.
The Institute for Solid State Physics and Optics make research in quantum optics, laser applications and atomic level material research. The main profile of the institute is the table-top experiments in local laboratories, theoretical research, and simulations based on modern numeric method with big calculation capacity demand. Main topics: quantum informatics, nonlinear optical spectroscopy, medical applications of lasers, production and examination of new materials, development of spectroscopic methods of material research from infrared range to X-ray radiation and free-electron lasers. The researchers of the two institutes participate in the graduate and postgraduate education near the scientific work, take more seminars, lead many diploma and doctoral thesis every year.
The structure of the Institute for Particle and Nuclear Physics

Theoretical Physics
- Particle Physics and Field Theory Research Group
- Heavy-Ion Physics Research Group
- Gravitational Physics Research Group
- Femtoscopy Research Group
- Holographic Quantum Field Theory Research Group
  
High Energy Physics
- Hadron Physics Research Group
- Innovative Research Group for Particle Detector Development
- Standard Model and Search for New Physics Research Group
- Laser Particle Accelerator Technologies Research Group
  
Material Science by Nuclear Methods
- X-Ray Spectroscopy Research Group
- Functional Nanostructures Research Group
- Ion Beam Physics Research Group
  
Computational Sciences
- System Level Neuroscience Research Group
- Theoretical Neuroscience and Complex Systems Research Group
- Rehabilitation-technology Research Group
- Data and Compute Intensive Sciences Research Group
- Quantumcalculation and informatics Research Group
  
Space Physics and Space Technology
- Space Physics Research Group
- Space Technology Research Group
The structure of the Institute for Solid State Physics and Optics

Theoretical Solid State Physics Research

- Strongly Correlated Systems Research Group, Building 1
- Complex Systems Research Group, Building 1
- Long-range Orders in Condensed Systems Research Group, Building 1
- Semiconductor Nanostructures Research Group, Building 1

Experimental Solid State Research

- Non-equilibrium Alloys Research Group, Building 1
- Structure Research Laboratory, Building 1

Complex Fluid Research

- Partially Ordered Systems Research Group, Building 1
- Gas Discharge Physics Research Group, Building 1
- Liquid Structure Research Group, Building 1

Applied and Nonlinear Optics Research

- Laser Applications and Optical Measurement Techniques Research Group, Building 1, Building 4, Building 25/A
- Femtosecond Lasers Research Group, Building 25/A
- Ultrafast, High-intensity Light-matter Interactions Research Group, Building 1
- Crystal Physics Research Group, Building 1, Building 4
- Nanostructures and Applied Spectroscopy Research Group, Building 1

Quantum Optics and Quantum Information Research

- Quantum Optics Research Group, Building 1
- Quantum Information and Foundations of Quantum Mechanics Research Group, Building 1
Wigner Datacenter is a large scale investment project of the Wigner Research Centre for Physics. The Datacenter was built in 2012 with the support of the Ministry of National Development; a project fitting in the EU Digital Agenda and the Digital Renewal Action Plan. Our Datacenter aims to conform to the dynamically changing needs of research and innovation by providing a cutting-edge infrastructure with exceptional energy efficiency, in an environmentally friendly way.

For the next decade the pillars of the European research-related IT infrastructure will be the high security data centres that follow a sustainable operating model. The Datacenter supports the dynamically changing needs of research and innovation through a cutting-edge infrastructure with exceptional energy efficiency, in an environmentally friendly way. The innovative implementation of the concentrated, high energy density computing and data storage capacity will serve as a reference for research IT projects in the future.
The location

Buda Hills is a very important green area of Budapest. It has a diverse geology, its main mass is based upon mesozoic dolomite and limestone, and on that we find sedimentary rocks. Our campus is located also on a layer of limestone and marl.

This diverse geology supports a colourful flora and fauna. In some areas we can find 20-30 protected animals and kinds of plants within a hundred meters. The forests in the Buda Hills are dominated by deciduous, mostly oak trees, but we can see beech trees as well.

Our research centre is in the green forest of Csillebérc. This area called about a fairy (Csile) from the legends of the Buda Hills. While walking in this beautiful landscape we can easily imagine those fairy tales.

Although we cannot meet with the imaginary creatures, we can see many interesting animals and plants.

The squirrels and birds can be frequently seen from the windows of the offices and labs, but there are many other interesting and protected insects and reptiles on the campus that live in hiding.
**KFKI sports and camping ground:**

A sporting complex is located next to the KFKI campus. Amongst the many options offered there, you can play table tennis, football and tennis there.

Next to the play ground, you can also enjoy horse riding in the Normafa Riding School: https://www.facebook.com/NormafaLovasiskola (in Hungarian)

During the summer season, visitors can enjoy our sailing camp in Balatonszántód: http://szantodikemping.hu/ (in Hungarian). In wintertime, we organize skiing trips at Normafa.

Contact:
E-mail: uzemeltetes@kfkipark.hu
Phone: ext. 3020

**Gym and sauna:**

A gymnasium is available on site in Building 4. Having entered the building, follow the corridor to your right until you reach the gym area. You will also find a sauna in front of the gym. For further information and prices please contact KFKI Technology Park Ltd. at the uzemelteto@kfkipark.hu e-mail address.

**Resort Hotels of the Hungarian Academy of Sciences (HAS):**

The HAS maintains resort hotels in two areas of Hungary: the region of Mátra and Cserhát Hills and at the Lake Balaton. These hotels are available for employees of the Hungarian Academy of Sciences and of its former institutes. They offer reduced prices for the employees and their relatives.
More info (in Hungarian): udulo.mta.hu

**Sports in District 12 of Budapest (in Hungarian):** https://www.hegyvidek.hu/kikapcsolodas/sport-szabadido
Events

At Wigner RCP various annual events are organized. Most are professionals, about those one can find information at the web site https://wigner.hu/, at the websites of the research groups, and also in advertisements posted on site.

There are also outreach activities for families and students. Such events are the Researcher’s Night in September, the Girls Day in April for students and families, the Wigner Octoberfest and the Christmas celebration for the employees of Wigner RCP. For more information see https://wigner.hu/ and the circular mails of the Wigner Management Board.

We encourage every colleague to join the outreach activities as an instructor or demonstrator. We have for example a monthly outreach program, the Wigner Café in the Csopa Science Center.

You get more information from Communication Advisor.

Family

Children on site:

Due to the strict safety rules, children under the age of 14 are NOT allowed to visit the campus.

Kindergarten and Nursery of the Hungarian Academy of Sciences:

The Kindergarten and the Nursery of the HAS is located in the nicest part of Buda, on Rózsadomb. It is a green area with really clean air and a big garden. The Kindergarten is available for the children of employees of the former Research Institutes of the HAS.

More info:
https://aob.hu/
1022 Budapest, Barsi street 3.
Phone / fax: 1 326 7780
Eötvös Loránd Research Network
elkh.org

Hungarian Academy of Sciences
mta.hu/english

Operator Ltd. (KFKI operator)
kfki.hu

Centre for Energy Research
www.energia.mta.hu

Budapest Research Reactor
www.bnc.hu

City Hall of District 12
www.hegyvidek.eu

Children’s railway
www.gyermekvasut.hu

Duna-Ipoly National Park (information about our natural environment and hiking trails)
www.dinpi.hu
Sources of the information booklet:
wigener.hu
Természet Világa - 2011 first special issue
Fizikai Szemle - 2006.01.24.
hegyvidek.eu
old.kfki.hu
dinpi.hu
GoogleMaps

Sources of the pictures:
Archive photos of the Wigner RC
old.kfki.hu - Photos by Béla Selmeci
National Technical Information Centre and Library

Wigner Research Centre for Physics
1121 Budapest, Konkoly-Thege Miklós street 29-33.
wigner.hu
titkarsag@wigner.hu
+36 1 392 2512