

# (A) GENERAL DATA

Title	Doctoral School of Physics
Degree	PhD in Physics
Туре	Full Degree program
Level	Doctoral level
Accreditation number	OH-FRKP/406-3/2007.
Faculty	Faculty of Science
Institute	Institute of Physics
Department(s)	Doctoral School of Physics
Language	English
Duration	4 + 4 semesters
ECTS credits	240
Place	ELTE Lágymányos Campus
Minimum number of new students	1



## (B) PROGRAM CONTENT

#### **Short description:**

The Doctoral School of Physics of Eötvös Loránd University was founded in 1994:

http://www.doktori.hu/index.php?menuid=191&di ID=61&lang=EN

The research topics covered by the School within the International Degree Programs are organized in three thematic programs:

- Materials Science and Solid State Physics;
- Particle Physics and Astronomy; and
- Statistical Physics, Biological Physics and the Physics of Quantum Systems.

The program is research-oriented, the students start to work on their chosen topic under the guidance of a supervisor, immediately after enrolling in the program. In the first two years, students are required to attend 8 courses as well, and complete the corresponding exams. In order to get the degree, students must have at least two papers published (or accepted for publication) in internationally renowned journals. The degree can be defended after 6 semesters, the earliest. The students should submit a short progress report after each semester.

Research at the School is done in close collaboration with all major research institutes of the Hungarian Academy of Sciences (including <u>Wigner Research Centre</u>, <u>Materials Science</u> <u>Research Institute</u>, <u>Astronomical Institute</u>, and <u>Institute</u> of <u>Enzymology</u>).

#### Strength of program:

The Institute of Physics at Eötvös Loránd University, ranked highly on the various international lists (like CHE), employs almost one hundred highly qualified permanent staff members working in various branches of experimental and theoretical physics. In addition, the Institute collaborates with the equally well-qualified research staff of the institutes of the Hungarian Academy of Sciences. Thanks to our supervisors coming from these institutions, our students can have access to the largest international research facilities (LHC at CERN, RHIC at BNL, LIGO, etc.) in particle physics, astronomy and astrophysics, as well as to a unique computing facility (200 PC's connected to form 'Poor Man's Supercomputer), which is used extremely successfully in large scale lattice QCD simulations. We collaborate with several additional research institutes and universities outside Hungary, and regularly have visitors from abroad doing research or giving courses here. Thus our students have many opportunities to join international research activities and establish professional contacts early in their career.



## **Eötvös Loránd University Faculty of Science**

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# (C) STRUCTURE

Courses to be taken in the first 4 semesters can be chosen, with the consent of the advisor, from a list of courses, depending on the research topic of the student.

The list is available at the following website: <a href="http://ttk.elte.hu/node/1004">http://ttk.elte.hu/node/1004</a>





# (D) CAREER

### **Career opportunities:**

Our graduates apply successfully for post-doctoral positions all around the world, and later many of them get tenure or tenure track positions at universities or research institutes. Some of our students will pursue their research career in the non-academic environment of large international research institutions, tied to high-tech development.

### Job examples:

Research associate, research scientist, program developer, university professor.



# (E) ADMISSIONS FOR THE ACADEMIC YEAR 2017/2018

#### **TUITION AND OTHER FEES**

	EU/EEA students	non-EU/EEA students
Tuition fee/semester	1910 (EUR)*	2500 – 4500 (EUR) depending on the research topic
Application fee	160 (EUR)	160 (EUR)
Registration fee	60 (EUR)	60 (EUR)

<sup>\*</sup> Reduced fee: 350 EUR, if you research not in the University teritory.

Offered for the academic year 2017/2018?	YES
Deadline for applications – September intake	30 May 2017
Is there a February intake?	NO

#### Admission requirements – Language requirements:

THE REQUIREMENTS LISTED HERE APPLY TO **STIPENDIUM HUNGARICUM** APPLICANTS, TOO.

Admission requirements: A master's degree in physics or in a closely related field is a mandatory requirement. Applicants still pursuing their MSc studies should get their degree by the end of June 2017.

Language requirements: A good command of English is essential. If English is not the applicant's mother tongue, or if s/he hasn't pursued her/his university studies in English, a language certificate proving at least B2, but preferably C1 level of proficiency is required. Only language examinations recognised by the Hungarian Accreditation Centre for Foreign Language Examinations are accepted (e.g.: IELTS).

Criteria for ranking at the admission procedure shall include:

- 1. previous university achievements (examinations, comprehensive examinations, qualification of degree),
- 2. achievements related to previous research work (publications in the particular professional area, awards),
- 3. the feasibility of and personal engagement to the research plan.

#### Admission requirements – Documents to submit with application:

- ✓ Bachelor-level degree
- ✓ Master-level degree
- ✓ Transcript of records
- ✓ CV
- ✓ Research plan
- ✓ Letter of recommendation (optional)
- ✓ Application form
- Copy of the main pages of the passport (needs to be valid)
- ✓ Passport photo
- ✓ Medical certificate
- ✓ Certificate of clean criminal records
- ✓ Copy of application fee transfer
  - Other: English language certificate (except if
- ✓ your mother tongue is English, or your previous studies was in English)

#### **Application procedure:**

THIS APPLIES TO **STIPENDIUM HUNGARICUM** APPLICANTS, TOO, AND SHOULD RUN IN PARALLEL TO THEIR APPLICATION FOR A SCHOLARSHIP AT TEMPUS PUBLIC FOUNDATION.

- well before the deadline, please visit the following websites:

http://www.doktori.hu/index.php?menuid=189&lang=EN&tip=O&diID=61

and

http://ttk.elte.hu/node/1003

where you find all the names and homepages of our supervisors and a list of thesis topics, respectively



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- even if no thesis topics are announced by someone whose research field you find to be closely related to your interest, please contact her/him via email, and agree on a topic suitable for you, provided your knowledge and research experience are relevant to the subject
- upon mutual agreement, ask the potential supervisor to announce this new topic on the above referenced websites
- agree with the supervisor on the outlines of the research, and prepare a research plan which should be submitted signed by the supervisor and you
- fill in the application form that can be downloaded from here: http://ttk.elte.hu/node/820

The application is done by sending all the admission requirements to our International coordinator at <a href="mailto:international.co">international.co</a> international by May 30. 2017, the latest.

#### **Procedure of the entrance examination:**

THIS APPLIES TO **STIPENDIUM HUNGARICUM** APPLICANTS, TOO.

The application package is reviewed by an admissions committee. Then the applicant is expected to take an oral entrance examination in the period: late June, early July. If a personal meeting is impossible, the interview is held through Skype or telephone. On this interview conducted by tutors, applicants will be asked about their prior studies, research experience, thesis work, motivation and theoretical knowledge.

The decision on admission or rejection is made at the earliest date possible, but by the end of July, the latest.

# (F) CONTACT

## Head of the Doctoral School of Physics

Name: Prof. Tamás Tél

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### Program leader

### **Materials Science and Solid State Physics**

Name: Prof. István Groma

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### **Particle Physics and Astronomy**

Name: Prof. László Palla

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## Statistical Physics, Biological Physics and the Physics of Quantum Systems

Name: Prof. Jenő Kürti

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## International program coordinator

Name: Angelika Újváry

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