Admission to the Doctoral School AMU – RESEARCH GRANTS

**Discipline: Physical sciences**

As part of the Physical Sciences discipline, the Doctoral School will provide education in many areas of modern physics and interdisciplinary fields in which scientific research is carried out. They include basic and applied research in theoretical and experimental physics such as for example solid state physics, quantum physics, nanomaterials, biophysics, medical physics, acoustics and optometry. As for the quantum engineering methods are being developed in conjunction with research into quantum systems. High-temperature superconductivity, topological properties of matter, as well as spintronic, photonic and phononic nanomaterials are studied in solid state physics. High-level research in the area of ​​soft matter is based on ultrafast laser spectroscopy, X-ray scattering and neutrons, supported by ab-initio simulations. Related to them are studies in biophysics and photovoltaics, where physical processes in cells, electron transport and photosynthesis are examined in detail. In the areas of acoustics and optometry, the basic directions are research into the impact of noise on humans and development of diagnostic methods for visual defects.

1. **Recruitment schedule:**

* Submission of documents: Faculty of Physics, ul. Uniwersytetu Poznańskiego 2, Dean's Office, 10:00 -14:00, contact persons: mgr Katarzyna Panek or mgr Joanna Kubicka, tel. 61 829 5202, e-mail: fizyka@amu.edu.pl
* Submission period: 20-30.08.2019 r.
* Qualification procedure: 04.09.2019 r., Council Hall of the Faculty of Physics, AMU.
* Publication of the ranking list: 13.09.2019 r.
* Publication of the list of candidates admitted to the Doctoral School: 16.09.2019 r.

1. **Admission fee**

The admission fee for the Doctoral School is PLN 200 or the equivalent in EURO.

The fee should be paid to the bank account:

IBAN: PL77 1090 1362 0000 0000 3601 7903

SWIFT: WBKPPLPP

with a note on the transfer slip: admission fee to the Doctoral School - **name and surname**

1. **Required documents**

1. Doctoral candidates shall submit:

1) cover letter with an indication of the scientific discipline in which they would like to obtain the academic degree of *doktor*,

2) personal questionnaire whose specimen shall be prepared and made available by the Doctoral School,

3) CV with documented scientific and other achievements as indicated in the list of documents,

4) preliminary proposal of the research project (up to 8 pages of the standard typescript),

5) copy of the diploma of graduation from a higher education institution confirming that the second cycle degree has been obtained, and in the case of graduates completing their education in the academic year 2018/2019 a certificate of graduation confirming completion of second cycle education in the academic year 2018/2019. Beneficiaries of the Diamond Grant Program shall also submit the Minister's decision on the allocation of funds for the implementation of the research project,

6) the Diploma Supplement (in the case of two-cycle programs - from first-cycle and second-cycle programs),

7) 35 mm x 45 mm color photograph,

8) 20 x 25 mm color photograph, with a resolution of at least 300 dpi (on an electronic data medium),

9) consent to the processing of personal data for the purposes of the admission procedure,

10) confirmation of payment of the admission fee.

2. Persons who have obtained the necessary education outside the Republic of Poland, shall submit in addition:

1) scan of the document confirming their education (copy) in the original language and in a certified translation into, respectively, English or Polish, together with the supplement,

2) scan / copy of the passport.

If you obtained your master diploma outside Poland, please look here:

<https://nawa.gov.pl/en/recognition/recognition-for-academic-purposes/applying-for-admission-to-doctoral-studies>

<https://nawa.gov.pl/en/recognition/how-to-obtain-a-recognition-statement>

1. **Evaluation criteria**

The Admission Committee and selection teams shall make decisions on the admission of

doctoral candidates on the basis of:

1) the grade awarded for the completion of the second cycle master’s degree program or one-cycle master's degree program and featured in the diploma – maximum 10 points,

2) evaluation of the candidate's current research work and scientific achievements on the basis of the CV and cover letter; doctoral candidates may indicate a maximum of three documented scientific achievements for evaluation – maximum 15 points,

3) other documented activities of the candidate supported with a maximum of three achievements indicated by the candidate – maximum 5 points,

4) the result of the interview; the interview shall cover:

a) the candidate's knowledge and competence relevant to the intended research and to the discipline covered,

b) the elements of the research methodology relevant to the discipline in question.

Maximum 50 points may be awarded for the interview; the maximum duration of the interview may be 30 minutes.

5) the preliminary proposal for the research project - maximum 20 points; the following will be evaluated in particular:

a) the ability to formulate the research aim and to present the research problem;

b) the novelty and originality of the research idea and the ability to propose a solution;

c) the methodology appropriate to the discipline in question;

d) knowledge of the state of research, including basic bibliography, relevant to the achievement of the stated research aims.

The maximum number of points which candidates may be awarded is 100. Only candidates

who have been short listed and who have been awarded at least 60 points shall be admitted;

the number of candidates admitted for the doctoral program of a given scientific discipline is

limited and decided by the Admission Committee.

**LIST OF RESEARCH GRANTS:**

**Projekt-NCN SONATA BIS nr 2016/22/E/ST2/00013** (Nucleon structure from lattice QCD

with twisted mass fermions)- Principal Investigator - dr hab. Krzysztof Cichy - 1 person.

**Project-NCN OPUS DEC-2017/27/B/ST3/00621** (Nonequilibrium phenomena and dynamics in nanoscale systems) – Principal Investigator - prof. dr hab. Ireneusz Weymann – 1 person.

**Project-NCN SONATA Nr 2018/31/D/ST3/03965** (Spin-dependent thermoelectric effects in hybrid nanoscopic systems) – Principal Investigator – dr Piotr Trocha