### INSTYTUT MATEMATYCZNY

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# Procedure for conferring a doctoral degree at the Institute of Mathematics of the Polish Academy of Sciences

Acting on the basis of art. 192 section 2 of the Act on Higher Education and Science of July 20, 2018 (Journal of Laws of 2018, item 1668), the Scientific Council of the Institute of Mathematics of the Polish Academy of Sciences, by resolution adopted at the meeting on October 24, 2019, established the following procedure for conferring a doctoral degree, along with changes made by the resolutions of the Scientific Council of April 29, 2020, November 14, 2022, June 16, 2023 and October 19, 2023.

#### Activities in the procedure for conferring a doctoral degree

§ 1.

- 1. In the procedure for conferring the academic degree of doctor, the Scientific Council of the Institute of Mathematics of the Polish Academy of Sciences, hereinafter referred to as the Council, adopts resolutions on:
  - 1) initiation of doctoral proceedings and the appointment and change of a doctoral advisor, doctoral advisors or a doctoral advisor and auxiliary doctoral advisor,
  - 2) appointing and changing reviewers,
  - 3) appointing a Committee to accept public defence of a doctoral dissertation and/or a Committee to conduct doctoral examinations,
  - 4) acceptance of the public defence of the doctoral dissertation,
  - 5) conferring the degree of doctor.
- Resolutions of the Council are adopted by a simple majority of votes in the presence of at least half of its members. Members of the Council who hold the title of professor or the degree of habilitated doctor participate in voting on the award of a doctoral degree.

#### Initiation of doctoral proceedings

§ 2.

- 1. The Council initiates doctoral proceedings for a person who:
  - 1) holds a professional title of master's degree, master's degree in engineering or an equivalent degree, or is a beneficiary of the "Diamond Grant" program;
  - 2) has achieved learning outcomes for qualifications at the level of PQF 8, where the learning outcomes in the field of knowledge of a modern foreign language are confirmed by a certificate or diploma confirming the knowledge of this language at the language proficiency level of at least B2;
  - 3) has in their achievements at least one of the publications listed below:

- a) 1 scientific article published in a scientific journal or in peer-reviewed materials from an international conference, which in the year of publication of the article in its final form were included in the list drawn up in accordance with the regulations issued on the basis of Art. 267 sec. 2 point 2 lit. b of the Law on Higher Education and Science, hereinafter referred to as the "Act",
- b) 1 scientific monograph published by a publishing house which, in the year of publication of the monograph in its final form, was included in the list drawn up in accordance with the provisions issued pursuant to Art. 267 sec. 2 point 2 lit. a of the Act, or a chapter in such a monograph.

§ 3.

- 1. Proceedings for the award of a doctoral degree shall be initiated at the request of a person, hereinafter referred to as a candidate or doctoral student, who meets the requirements set out in § 2. The application should be attached in paper form together with copies of these documents saved on a data carrier:
- 1) an application to initiate proceedings,
- 2) a copy of the master's or bachelor's diploma in the case of the Diamond Grant winner,
- 3) list of scientific achievements,
- 4) curriculum vitae,
- 5) 6 copies of the doctoral dissertation with a positive opinion of the doctoral advisor or doctoral advisors. The doctoral advisor or doctoral advisors shall compose an opinion on the doctoral dissertation prepared in the extramural procedure within 2 months from the date of its submission for opinion.
- 6) in case of co-authored articles and monographs included in or constituting the basis for the doctoral dissertation, the doctoral student shall attach to the documentation a statement describing their contributions,
- 7) an abstract in English shall be attached to the dissertation, and an abstract in Polish shall be attached to the doctoral dissertation in a foreign language,
- 8) an application with information whether the dissertation was previously presented in other proceedings for the conferment of a doctoral degree.
- 2. IMPAN refuses to initiate the procedure for awarding the degree of doctor, If the person who requested the initiation of that procedure does not comply with the requirements set out in §2, point 1. The decision not to initiate proceedings may be appealed to the Council of Scientific Excellence.

#### **Dissertation requirements**

§ 4.

- The doctoral dissertation presents the general theoretical knowledge of the candidate in the discipline or disciplines as well as the ability to independently conduct scientific work.
- 2. The subject of the doctoral dissertation is an original solution to a scientific problem, an original solution in the application of the results of one's own research in the economic or social sphere.

- 3. A doctoral dissertation may be a written work, including a scientific monograph, a collection of published and thematically related scientific articles, a design, technological or implementation work, as well as an independent and separate part of a collective work.
- 3.1 Where the doctoral dissertation is a collection of published and thematically related scientific articles, this dissertation must include:
  - 1) a list of articles included in the dissertation,
  - 2) introduction to the subject matter of the dissertation with a description of the results of the presented articles (up to 30 pages),
  - 3) the articles included in the dissertation.
- 4. In a situation where the nature of the written doctoral dissertation requires the candidate to have access to confidential information about the subject of research and there is a need to include it in the doctoral dissertation, the candidate may, in consultation with the doctoral advisor, submit a written request to the Chairman of the Doctoral advisory Board justifying the need to classify parts of the doctoral dissertation containing information confidential.

#### Procedure for appointing and scope of activities of the Committe

§ 5.

- 1. The committee may be appointed in a given doctoral proceeding to:
  - 1) acceptance of the public defence of the doctoral dissertation,
  - 2) admission to public defence of the doctoral dissertation.

The committee may also be appointed to conduct doctoral examinations.

- 2. The application for the appointment of the committees referred to in par. 1 shall be submitted to the Scientific Council by the Presidium of the Council and propose members of the Commission and the chairman of the Commission.
- 3. The committees referred to in par. 1 point 1 and 2 are appointed in an open vote, unless a request for a secret ballot is submitted by at least one member of the Doctoral advisory Board.

§ 6.

- 1. The committee appointed to accept the public defence of the doctoral dissertation consists of:
  - 1) five members of the Council holding the title of professor or the degree of habilitated doctor,
  - 2) reviewers appointed in the given doctoral proceedings,
  - 3) the doctoral advisor of the given doctoral proceedings.
- 2. The chairman of the Committee shall appoint a secretary from among the members of the committee referred to in par. 1 point 1.
- 3. The Committee adopts resolutions by a simple majority of votes, in the presence of at least 50% of the composition of the Commission, including the presence of the doctoral advisor and at least two reviewers.

4. In particularly justified cases, participation in the work of the Committee may take place using technical devices enabling simultaneous and direct transmission of image and sound.

§ 7.

- 1. The committee appointed to conduct doctoral examinations consists of at least:
  - 1) the chairman,
  - 2) the examiner,
  - 3) a member of the committee (in particular, it may be a doctoral advisor).
- 2. The exam ends with a grade given by the examiner in consultation with the members of the committee, according to the following scale:
  - 1) very good 5.0,
  - 2) good plus 4.5,
  - 3) good 4.0,
  - 4) fair plus 3.5,
  - 5) fair 3.0,
  - 6) insufficient 2.0.
- 3. In the event of failure to pass one of the doctoral examinations, the Council conducting the doctoral proceedings, at the candidate's request, may consent to taking the examination again, but not earlier than three months after the date of taking the examination for the first time and not more than once.

### Method of appointing and changing the doctoral advisor, doctoral advisors or auxiliary doctoral advisor

§ 8.

- Scientific supervision over the preparation of the doctoral dissertation is exercised by the doctoral advisor or doctoral advisors or by the doctoral advisor and auxiliary doctoral advisor.
- 2. The doctoral advisor, doctoral advisors or auxiliary doctoral advisor shall be appointed by the Council in a secret ballot.
- 3. The doctoral advisor may be a person holding a degree of habilitated doctor and the auxiliary doctoral advisor a person with at least doctoral degree.
- 4. The doctoral advisor and reviewer may be a person who is an employee of a foreign university or scientific institution, if the Council considers that this person has significant achievements in the field of scientific issues covered by a given doctoral dissertation.
- 5. A doctoral advisor cannot be a person who in the last 5 years:
  - was the doctoral advisor of 4 doctoral students who were removed from the list of doctoral students due to the negative result of the mid-term evaluation, or
  - 2) supervised the preparation of the dissertation by at least 2 persons applying for a doctoral degree, which did not receive positive reviews.
- 6. In particularly justified cases, it is possible to change the doctoral advisor, doctoral advisors or a doctoral advisor and an auxiliary doctoral advisor. The candidate

submits an application to the Chairman of the Doctoral advisory Board with an indication of the reason for the change, the consent of the person to whom the change applies, as well as the acceptance of the new doctoral advisor, doctoral advisors or doctoral advisor and auxiliary doctoral advisor.

- 7. A doctoral advisor who is a member of the Scientific Council can't participate in voting regarding the given doctoral procedure.
- 8. A person applying for the award of a doctoral degree under the extramural procedure, before initiation of the procedure submits an application for the appointment of a doctoral advisor or doctoral advisors, or a doctoral advisor and an auxiliary doctoral advisor.

#### Method of appointing and changing the reviewers

§ 9.

- 1. The reviewer may be a person holding degree of doctor habilitated or the title of professor.
- 2. The reviewer may be a person who is an employee of a foreign university or scientific institution, if the Council considers that this person has significant achievements in the field of scientific issues covered by the given doctoral dissertation.

§ 10.

- 1. The council or commission appointed in a given doctoral proceeding, after getting acquainted with the opinion of the doctoral advisor or doctoral advisors on the doctoral thesis, proposes at least three reviewers of the dissertation.
- 2. In the procedure for conferring the degree of doctor, the Council, in a secret ballot, appoints three reviewers from among persons who are not employees of the Institute of Mathematics of the Polish Academy of Sciences and of a higher education institution, institute of the Polish Academy of Sciences, research institute or international institute whose employee is the person applying for the degree of doctor.
- 3. The reviewers prepare reviews of the doctoral dissertation within 2 months from the date of its delivery.
- 4. In particularly justified cases, it is possible to change the reviewer. The Chairman of the Committee submits a request to the Chairman of the Council with an indication of the reason for the change.

## Method of verification of learning outcomes for qualifications at PQF level 8 in the case of persons applying for a doctoral degree in the extramural mode

§ 11.

1. After submitting the application for the initiation of the procedure, the candidate applying for the degree of doctor in the extramural mode shall proceed to the procedure of verification of learning outcomes at level 8 of the PQF.

- 2. In the case of graduates of the doctoral school co-run by IMPAN, the learning outcomes at level 8 of the PQF are verified on the basis of:
  - an oral examination in a scientific discipline corresponding to the subject of the doctoral dissertation, and
  - 2) a certificate issued by the doctoral school.

Learning outcomes in terms of knowledge of a modern foreign language are confirmed by a certificate or diploma confirming the knowledge of this language at the language proficiency level of at least B2. In the case of a person applying for the award of a doctoral degree who does not have the appropriate certificate or diploma, IMPAN shall conduct an examination to confirm knowledge of a modern foreign language at the level of proficiency B2.

- 3. In the case of candidates applying for a doctoral degree who are not graduates of a doctoral school co-run by IMPAN, including candidates applying for a doctoral degree in the extramural mode, the learning outcomes at level 8 of the PQF are verified on the basis of:
  - 1) an oral examination in a scientific discipline corresponding to the subject of the doctoral dissertation, and
  - 2) documents submitted to the examination committee referred to in § 7.1. If the commission finds that the submitted documents are insufficient, it conducts an examination to verify the candidate's competence.

Learning outcomes in terms of knowledge of a modern foreign language are confirmed by a certificate or diploma confirming the knowledge of this language at the language proficiency level of at least B2. In the case of a person applying for the award of a doctoral degree who does not have the appropriate certificate or diploma, IMPAN shall conduct an examination to confirm knowledge of a modern foreign language at the level of proficiency B2.

4. The examinations referred to in sec. 2 and 3, the candidate sits before the examination committee referred to in § 7.1.

#### The course of the doctoral defence

§ 12.

- 1. If the doctoral dissertation is a written thesis, the doctoral advisor checks it before the defence using the Uniform Anti-Plagiarism System.
- 2. The report on the anti-plagiarism test is provided by the doctoral advisor to the Chairman of the Council.
- 3. A person who has received positive reviews from at least 2 reviewers may be admitted to the public defence of a doctoral dissertation.
- 4. The Council or the Committee referred to in § 6 shall become acquainted with the reviews of the dissertation and the results of the doctoral examinations. If they are positive, he conducts a secret ballot on accepting the dissertation and admitting it to public defence. The decision to refuse admission to the defence may be appealed against to the Council of Scientific Excellence.
- 5. The Council or the Commission referred to in § 6 shall set a date for the public defence of the doctoral dissertation.

- 6. All scientific institutions authorized to confer the degree of doctor of natural sciences in a given discipline are notified of the public defence of a doctoral dissertation
- 7. IMPAN publishes in the Public Information Bulletin of the Institute of Mathematics PAN on its website, no later than:
  - 1) 30 days before the scheduled date of the PhD dissertation defence:
  - a) a doctoral dissertation which is a written work together with its summary or a description of the a doctoral dissertation which is not a written work,
  - b) reviews;
  - 2) 10 days before the scheduled date of the PhD dissertation defence information about the when, where and how it is carried out.
- 8. The following documents have to be prepared for the doctoral defence:
  - 1) a copy of the thesis and reviews,
  - 2) attendance list of members of the Commission.
  - 3) ballot papers on accepting the doctoral dissertation and on applying to the Council for the conferment of a doctoral degree, as well as the voting records.
  - 4) current curriculum vitae containing the doctoral student's scientific achievements.
- 9. The defence course:
  - 1) the public part of the meeting:
    - a) the chairman of the commission presents the profile of the doctoral student and his scientific and professional achievements,
    - b) the doctoral student presents the main theses of the dissertation,
    - c) reviewers present their reviews (in the absence of the reviewer, the Chairman of the Committee orders the review to be read out),
    - d) the chairman of the Committee opens a discussion in which all persons present at the meeting may participate,
    - e) he candidate answers the questions put to him;
  - 2) classified part of the meeting:
    - a) members of the Committee discuss the course of the defence,
    - b) secret ballot on the motion to accept the defence of the doctoral dissertation,
    - c) secret ballot on applying to the Council for the award of a doctoral degree,
    - d) secret ballot on the request to the Council for a distinction of a doctoral dissertation. The condition for the submission of such a proposal to the Council are the following:
      - (1) application for distinction of the PhD thesis in at least one review of the doctoral dissertation, and
      - (2) obtaining 2/3 majority of the votes cast by the Commission on the proposal for distinction.
  - 3) open part of the meeting:

The Chairman of the Committee announces the results of the Committee's deliberations.

10. In particularly justified cases, the defence may be held with the use of technical devices enabling remote meetings with simultaneous direct transmission of image and sound.

- 11. If the doctoral dissertation was defended before the Committee, the Committee shall prepare a draft resolution on conferring the degree of doctor and submit it to the Council.
- 12. The academic degree of doctor is awarded by the Council by an administrative decision.
- 13. The Council's decision to refuse to confer a doctoral degree may be appealed against to the Council of Scientific Excellence through the Scientific Council.

### Rules for determining the amount of the fee for the extramural procedure for conferring a doctoral degree and for exempting from this fee

§ 13.

- 1. The amount of the fee for the procedure for conferring a doctoral degree under the extramural procedure is determined by the Director.
- 2. The candidate pays a fee for conducting the proceedings in this case to the IM PAN bank account.
- 3. The amount of the fee may not exceed the costs of the proceedings, taking into account in particular, the remuneration costs of the doctoral advisor or doctoral advisors, the auxiliary doctoral advisor and reviewers.
- 4. The fee shall not be charged to a doctoral applicant who has completed doctoral studies not later than 2 years before submitting the application for the appointment of a doctoral advisor or doctoral advisors.
- 5. The fee shall not be charged to a doctoral applicant who has completed the education at the Doctoral School.
- 6. In justified cases, the Director may waive the fee in whole or in part for persons who apply for a doctoral degree in the extramural mode.
- 7. In the case of an academic teacher or a researcher, the costs of the proceedings shall be borne by the employing university, an institute of the Polish Academy of Sciences, a research institute or an international institute.
- 8. In the case of an academic teacher or a researcher employed in more than one entity referred to in point 7, the costs incurred by the proceedings:
  - 1) are borne by the entity which is the teacher's primary place of employment, or unless otherwise agreed by the entities;
  - 2) are incurred on the basis of an agreement between entities, where none of them has been identified as the primary place of work of that teacher or employee.

#### **Transitional and Final Provisions**

§ 14.

- 1. Proceedings for the award of a doctoral degree initiated after September 30, 2019 shall be conducted pursuant to the provisions of the Act, except that in the proceedings initiated by December 31, 2020, scientific achievements also include:
  - 1) scientific articles published:
    - a) in scientific journals or peer-reviewed materials from international conferences, included in the list,

- b) before 1 January 2019 in scientific journals that were included in part A or C of the list of scientific journals or were included in part B of this list, with at least 10 points awarded to scientific articles published in them,
- 2) scientific monographs published by:
  - a) a publishing house included in the list,
  - b) the organizational unit of the entity whose publishing house is included in the list.
- 2. In the case of persons who started their doctoral studies before the academic year 2019/2020 or persons in the extramural mode and who apply for a doctoral degree, the procedure for awarding a doctoral degree shall be initiated by submitting an application for the appointment of a doctoral advisor or doctoral advisors.
- 3. In the case of persons who started their doctoral studies before the academic year 2019/2020 outside the IM PAN and apply for a doctoral degree, the learning outcomes for qualifications at level 8 of the PQF are confirmed by a certificate of completion of doctoral studies. Learning outcomes in terms of knowledge of a modern foreign language are confirmed by a language certificate at the level of min. B2. In the absence of a language certificate and/or a certificate of completion of doctoral studies, the learning outcomes at level 8 of the PQF may be verified in accordance with § 11.
- 4. In the case of persons who started doctoral studies at the IM PAN before the academic year 2019/2020 and apply for a doctoral degree, the learning outcomes for qualifications at the level 8 of the PQF are confirmed by a certificate of obtaining at least 30 ECTS points. Learning outcomes in terms of knowledge of a modern foreign language are confirmed by a language certificate at the level of min. B2. In the absence of a language certificate and/or a certificate of obtaining at least 30 ECTS points, the learning outcomes at PQF level 8 may be verified in accordance with § 11.
- 5. A person preparing a doctoral dissertation in the extramural mode who initiated the doctoral procedure and for which the results of the level 8 of the PQF according to the procedure described in § 11(3) may apply for the right to use the IM PAN research and informatics infrastructure by submitting an application to the Director of the IM PAN.
- 6. Doctoral proceedings not completed by 31 December 2023 shall be discontinued or closed, respectively.