1 postdoctoral position in the scientific project
"Between proof theory, reverse mathematics, and the model theory of arithmetic" financed by the Polish National Science Centre (contract 2023/49/B/ST1/02627) Principal Investigator: Leszek Kołodziejczyk

The project „Between proof theory, reverse mathematics, and the model theory of arithmetic", led by dr hab. Leszek Kołodziejczyk, is offering one postdoctoral position in the Institute of Mathematics at the Faculty of Mathematics, Informatics and Mechanics of the University of Warsaw.

Terms of employment
The selected candidate will be employed as a full-time researcher (*pol*. adiunkt). The duration of employment is for one year, with possible extension for a second year. The starting date can be set between **March 1, 2025** and **October 1, 2025**, as agreed upon by the candidate and the principal investigator. The offered basic salary is approx. 9 000 PLN gross/month. The position comes with no teaching obligations. The selected candidate will work on problems related to one or more of the research directions studied within the project, which are described below.

Description of the project
The project concerns various issues related to the model theory and proof theory of first- and second-order arithmetic. The three main research topics are:
- Models of collection principles, in particular expansions of models that satisfy collection but not induction for a given class of formulas.
- The first-order consequences of second-order statements (in particular combinatorial statements) over various base theories in second-order arithmetic.
- The development of a theory of proof sizes and proof speedup for subtheories of arithmetic.

Requirements
The candidate should have research experience (documented by publications or preprints) in at least one of the following areas of mathematical logic related to the topics of the project:
- nonstandard models of arithmetic,
- proof theory of arithmetic,
- reverse mathematics.

Experience in using nonstandard models to obtain provability or unprovability results will be an advantage.

At the moment of employment, the successful candidate will be expected to hold a PhD degree in a discipline related to mathematical logic. The degree must be obtained no earlier than 7 years before the year of employment in the project. A PhD degree is not required at the time of application.

The competition may be entered by candidates who meet the conditions set out in art. 113 of the Law on Higher Education and Science of July 20, 2018 (Journal of Laws of 2023, item 742, as amended).

Applications

An application should include:

- a signed cover letter addressed to the Dean of the Faculty of Mathematics, Informatics and Mechanics, University of Warsaw, together with the **personal data clause** (attached);
- a copy of the PhD diploma; if the candidate does not yet have a PhD, a copy of the thesis or a description of the expected contents of the thesis, together with a statement concerning the expected date of obtaining the degree;
- a scientific CV with a list of publications;
- at most three recent publications.

In addition, two recommendation letters by senior researchers are required. They should be sent directly to the email address provided below.

Applications, as well as further questions on both the scientific topic of the project and the formal details of the call procedure, should be directed to dr hab. Leszek Kołodziejczyk:

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lak@mimuw.edu.pl

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In order to apply for the position, candidates should send an e-mail and submit the required documents as attached .pdf files.

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Application deadline: November 16, 2024

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Applications which do not satisfy the above requirements or are submitted after the deadline will not be considered.

The applications will be evaluated by a selection committee appointed by the Dean of the Faculty of Mathematics, Informatics and Mechanics, University of Warsaw. The committee or the principal investigator may invite the candidate to a meeting, which will be conducted remotely. The results of the competition will be sent to candidates electronically on **January 15, 2025** at the latest. The competition is the first stage of the recruitment process as described in the Statute of the University of Warsaw, the recommendation by the selection committee being a basis for its subsequent stages.

Information on the Internal Reporting Procedure at the University of Warsaw based on the Act of 14 June 2024 on the Protection of Whistleblowers
The University of Warsaw has implemented a procedure for whistleblowers to report legal violations and for subsequent follow-up actions—the Internal Reporting Procedure, which is an annex to the Rector's Order No. 94 of 17 September 2024 on the procedure for reporting legal violations by whistleblowers and taking follow-up actions at the University of Warsaw. This procedure has been published and is available in the University Monitor, entry 266.

given and family name

Information on personal data processing

Controller

Controller of your personal data processed in connection with the recruitment process is the University of Warsaw, ul. Krakowskie Przedmieście 26/28, 00-927 Warszawa, as the Employer.

Contact with the controller:
- by traditional mail at: University of Warsaw, ul. Krakowskie Przedmieście 26/28, 00-927 Warszawa (name the organizational unit to which your letter is addressed);
- by phone: 22 55 20 355.

Data Protection Officer (DPO)

Controller has designated Data Protection Officer whom you may contact via email at iod@adm.uw.edu.pl. You may contact the DPO in all matters relating to your personal data processing by the University of Warsaw and the exercise of rights in relation to the processing of personal data.

The DPO, however, does not proceed other matters, like handling recruitment procedures, collecting recruitment documents, providing information on current recruitment process.

Purpose and legal grounds of data processing

Personal data of candidates for employment shall be processed for recruitment purposes only.

Your personal data shall be processed in the scope as indicated by employment law[1] *(given name (names) and family name, date of birth, contact information as provided, education, professional qualifications, previous employment)* for the purposes of this recruitment process[2], whereas other data[3] shall be processed based on your consent which may take the following wording:

> *I agree to the processing of personal data provided in CV and other submitted documents by the University of Warsaw for realising my recruitment process.*

If your documents include data as mentioned in Art. 9 section 1 of the GDPR (special categories of personal data), processing shall be possible upon your consent to processing such data[4] which may take the following wording:

> *I agree to the processing of special categories of personal data, as mentioned in Art. 9 section 1 of the GDPR, provided in CV and other submitted documents) by the University of Warsaw for realising my recruitment process.*

The University of Warsaw shall be also processing your personal data in future recruitment processes upon your consent[5] which may take the following wording:

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[1] Art. 22¹ of the law of June 26, 1974 Labour Code (i.e. Journal of Laws 2019 item 1040 with subsequent changes);

[2] Art. 6 section 1 letter b of the Regulation of the European Parliament and the Council (EU) 2016/679 of April 27, 2016 on protection of individual persons with regard to the personal data processing and on the free flow of such data, and also repealing Directive 95/46/EC (general regulation on data protection) (Official Journal EU L 119 of 04.05.2016, page 1, with subsequent changes) (hereinafter as the GDPR);

[3] Art. 6 section 1 letter a of the GDPR;

[4] Art. 9 section 2 letter a GDPR;

[5] Art. 6 section 1 letter a GDPR;

> *I consent to processing of my personal data for the purposes of any future recruitment processes at the University of Warsaw for the period of the next nine months.*

You may revoke all such consents at any time by, for example, sending an email at konkursy@mimuw.edu.pl.

Be advised that the revocation of your consent does not affect legal compliance of processing which had been completed upon consent before its revocation.[6]

Data retention period

Your personal data collected in this recruitment process shall be stored over the period of three months from the date the recruitment process is completed.

In case you agree to process your data in future recruitments, your data shall be used over the period of nine months.

Data recipients

Officers authorized by the Controller shall have access to your personal data, the processing of which is in the scope of their duties.

~~Recipients of personal data may be other subjects obligated by the Controller to provide specific services involving data processing, like~~

~~..~~
~~*(name all recipients of data)*~~

Data transfer outside the European Economic Area (EEA)

Your personal data shall be disclosed to subjects authorized by law. Signing-in is through Google Forms. Your personal data may be also processed by our provider of G-Suit for education by Google Company in their data processing centres.[7] Your data shall be protected under the standards of the Privacy Shield, accepted by the European Commission.[8] This shall guarantee an adequate level of data security.

Rights of the data subject

Under the GDPR data subjects have the following rights:
- to access data and to receive copies of the actual data;
- *to* correct (rectify) your personal data;
- to restrict processing of personal data;
- to erase personal data, subject to provisions of Art. 17 section 3 of the GDPR;
- to file a claim with the President of the Personal Data Protection Office, if you believe data processing violates law.

Information on the requirement to provide data

Providing your personal data in the scope resulting from law is necessary to participate in the recruitment process. Providing other personal data is voluntary.

....   …................................
        place and date   applicant's signature

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[6] Art. 7 section 3 GDPR;

[7] https://www.google.com/about/datacenters/inside/locations/index.html

[8] https://www.privacyshield.gov