



**Postdoc position for the National Science Centre project “Hybrid models of natural reasoning”
implemented at the Institute of Mathematics of the Polish Academy of Sciences**

The research project aims to develop and study hybrid models of natural reasoning that combine methods of logic and deep learning. In hybrid models, reasoning is ultimately based on rules of logic, but neural networks are involved in tasks such as the process of premise selection or construction of reasoning steps. We will mostly investigate fragments of language, i.e. various subclasses of first order (or modal) logic that resemble natural language. However, we will be interested in analyzing and interpreting interactions between the logical and the neural components from the cognitive perspective rather than simply optimizing them.

We offer a genuinely interdisciplinary scientific environment, and oversight of the postdoc’s research activities by two advisers – one specializing in logic (prof. Maciej Malicki, Institute of Mathematics of the Polish Academy of Sciences), and another one specializing in cognitive science/computational linguistics (prof. Jakub Szymanik, University of Amsterdam). During the implementation of the project, we will cooperate with researchers from Poland, Netherlands and USA.

To learn more about the project, write to mmalicki@impan.pl.

Your Profile

We expect:

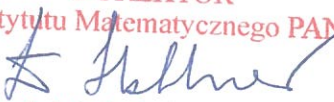
- PhD (defended before Oct 1st) in a field related to the project: cognitive science, computational linguistics, computer science, philosophy, etc.
- substantial research experience in methods of logic and/or machine learning
- passion for interdisciplinary research at the intersection of cognitive science, logic and computer science
- ability to work in a team, and assist in supervising a PhD student
- good command of English (oral and written)

Remuneration

A salary of appr. 6400zł (appr. 8300zł gross) will be paid for 24 months.

Application Procedure

For full consideration, send your application to mmalicki@impan.pl by May 15th, 2021. It should include a statement, a detailed description of your research interests, experience, and achievements, including a list of publications, as well the names, addresses, and e-mail addresses of at least two references. Selected candidates will be interviewed on-line.

DYREKTOR
Instytutu Matematycznego PAN

Prof. dr hab. Łukasz Stettner