SCHOLARSHIP FOR A PHD STUDENT IN ALGEBRA

The scholarship is offered within the NCN (National Science Centre) Sonata grant (project no. 2020/39/D/ST1/01852), entitled Solutions of the quantum Yang–Baxter equation and associated algebraic structures: (semi)groups, associative algebras and skew braces, which will be realized at the Faculty of Mathematics, Informatics and Mechanics, University of Warsaw with Łukasz Kubat as the Principal Investigator.

The theme of the project is concerned with certain aspects of non-commutative algebra. More precisely, the main goal is to investigate mutual interrelations between combinatorial properties of solutions of the Yang–Baxter equation and structural properties of associated algebraic objects (as groups, monoids, associative algebras and the so-called skew braces).

In finding examples of finite solutions of the Yang–Baxter equation with certain prescribed extra properties or in formulating working hypotheses concerning skew braces, we are going to exploit, among others, computer algebra methods based on systems such as GAP or SageMath.

We offer:

- Opportunity to conduct research in one of the current trends in mathematics with contributions and connections to classical and fundamental problems.
- Collaboration with top researchers from various algebra centers, including Barcelona, Brussels and (of course) Warsaw.
- Scholarship of 3000 PLN per month for 12 months (April 2022 – March 2023) with possibility of extension to 30 months (up to September 2024).
- Additional funds for short research visits, workshops, conferences, etc.

Requirements:

- Good understanding of basics of general algebra with particular emphasis on rudiments of group, semigroup and ring theory.
- Eligibility for studies in Doctoral School of Exact and Natural Sciences at the University of Warsaw.
- English at level B2 or higher.
- Basics of \LaTeX.

How to apply: Applications (in Polish or English) should be sent, no later than March 20th, 2022, to Łukasz Kubat via e-mail lukasz.kubat@mimuw.edu.pl, with the subject line Application for PhD scholarship. An application should contain:

- a cover letter including a brief description of candidate’s mathematical interests and plans or expectations for his/her PhD thesis.
- CV including basic personal data, information about candidate’s studies (list of attended algebra lectures, grades, etc.), as well as candidate’s scientific achievements (published papers, received awards, distinctions, scholarships, etc.).

Related inquiries (e.g., concerning details of the project) should also be sent to the same e-mail address.