INSTITUTE OF MATHEMATICS

POLISH ACADEMY OF SCIENCES

Competition for a scholarship in the Sonata Bis grant

The Institute of Mathematics of the Polish Academy of Sciences announces a competition for one scholarship for a PhD student within the Sonata BIS project led by prof. dr hab. Błażej Wróbel @impan.pl).

Type: student's scholarship

Project: "Dimension-free estimates in harmonic analysis and beyond it", National

Science Centre, Poland (NCN), Sonata Bis, nr 2022/46/E/ST1/00036

Application deadline: September 27th, 2024 (23:59 CET)

Expected start of scholarship: October 2024

Conditions. Financing duration: 12 months. Amount: 5000 PLN/month. Place of work: Wrocław.

Requirements. The scholarship is intended for a first year PhD student in mathematics. Candidates should have very good knowledge of Fourier analysis and functional analysis. Familiarity with topics in analytic number theory related to Waring's problem is also expected. Preference will be given to candidates which have already done research in project's area. Candidates should have good command of the English language and strong motivation for research.

Tasks description. The chosen candidate will participate in the realization of the research project "Dimension-free estimates in harmonic analysis and beyond it". She/He will deal with problems related to research task nr 2 "Dimension-free estimates for discrete maximal operators". These problems concern counting lattice points in high-dimensional balls, among others. The goal of the participation in the project is to write an article or articles related to the above mentioned research task.

Required documents:

- 1. Scientific CV.
- 2. E-mail address of a person who can be asked for an opinion about the candidate.
- 3. Copy of the diploma of finishing second degree studies (master).
- 4. File of the master thesis.
- 5. Description of mathematical interests (up to 1 page A4).

Criteria for candidate's assessment. The scholarship holder will be chosen by a committee with project's PI as its chairman. The scholarship will be granted according to <u>regulations for granting scientific scholarships of NCN</u>. An interview may be conducted with chosen candidates. In case there are no appropriate candidates the competition may finish inconclusive.

Interested candidates should send before September 27th 2024 (23:59) the aforementioned documents at the e-mail address: **bwrobel@impan.pl.** More information can be obtained from the Principial Investigator.

Deputy Director
Institute of Mathematics of PAS