

Postdoc position at University of Gdańsk financed under the project
SONATA-BIS 9 of the National Science Center
Computational Mathematics in Quantum Mechanics
(PI: dr hab. Karolina Kropielnicka, prof. IM PAN)

REQUIREMENTS

- A PhD in Mathematics must be obtained prior to the beginning of the contract. Moreover, it must be granted not earlier than 7 years before the beginning of the contract (extension of this period may be considered in the case of maternity or paternity leave).
- Candidates should have experience and/or strong research potential in computational mathematics, demonstrate good knowledge of mathematical analysis, differential equations and functional analysis.
- Moreover, they should have some programming experience in e.g. Python, Matlab or Julia and the ability to use Mathematica or Maple.

TASK DESCRIPTION

- Work on topics related to the grant research project. In particular, chosen employees may work on new computational methods for various dispersive equations, they may concern numerical approximation on unlimited domains (in space), on splitting methods, on highly oscillatory problems, on asymptotic expansions or on numerical analysis of differential equations of quantum mechanics.
- Checking and proving the convergence and stability of the derived approaches,
- Analysis of the behavior of invariants (after discretization) characteristic of the approximated equations.
- Implementing new methods, comparing to other existing ones
- Active participation in discussions, seminars, workshops, conferences and other thematic programs.
- Intensive cooperation with the project manager.
- Additional information can be obtained from the PI (kkropielnicka@impan.pl)

THE CONDITIONS OF EMPLOYMENT

- Duration of employment: 12 months
- The exact date of employment will be agreed with the selected candidate
- The amount of remuneration: PLN 11,666 (gross-gross) / month. (The net salary is about PLN 7,000 / month, where the cost of renting an apartment in Gdańsk is about PLN 2500).
- This is a research position (no teaching duties).
- The employee can count on financing (as part of the project) for participation in workshops, conferences, consultations related to tasks performed in the project.
- **The research work will be performed at the Faculty of Mathematics, Physics and Informatics of the University of Gdańsk in cooperation with the PI of the project (dr hab. Karolina Kropielnicka, prof of IM PAN).**

ADDITIONAL INFORMATION

The notification should include:

- An application
- A filled out information clause available after e-mail contact (kkropielnicka@impan.pl)
- Curriculum vitae containing information about the research activity to date
- Prints of the most important works
- Please send your applications by **15.08. 2023** to the e-mail address kkropielnicka@impan.pl
- The candidates will be notified individually about the date and form of a possible interview