

## OPEN POSITION FOR A MASTER'S STUDENT WITH A SCHOLARSHIP

in a project titled „**Topological Defects and Self-Bound Solutions in Mixtures of Ultracold Bose and Fermi Gases with Density Functional Theory**” funded by the National Science Centre, Poland,

lead by **Dr Marek Tylutki**  
in the **Nuclear Theory Group** at the **Warsaw University of Technology**.

We look for a motivated physics student, who would like to participate in a research on superfluid mixtures of Bose and Fermi gases with the use of advanced numerical methods (high performance computing), for a one year Master's thesis .

### Starting date in October 2022

Participating in the project you will:

- ✓ learn the physics of ultracold atomic gases
- ✓ get the experience with supercomputing.
- ✓ may participate in an international conference or a research visit (if the situation allows)
- ✓ be paid a stipend of **3500 PLN** monthly for 10 months.

Expectations:

- ✓ student of the 2nd cycle of studies in physics
- ✓ general knowledge of theoretical physics and quantum mechanics appropriate at the MSc level.
- ✓ experience in programming in C/C++
- ✓ good knowledge of English

Following will be a plus:

- ✓ experience with parallel programming and GPUs (CUDA programming)
- ✓ Python programming

Applications should include:

1. CV with a description of scientific achievements to date
2. motivation letter with their scientific interests (maximum one page); it should contain the statement: *"I hereby consent to the processing of my personal data I provided for the purposes of the selection procedure"*
3. transcript of their academic curriculum with grades
4. optionally one reference letter sent to the following address:  
[marek.tylutki@pw.edu.pl](mailto:marek.tylutki@pw.edu.pl)

**Complete** applications are expected to be sent by e-mail to: [marek.tylutki@pw.edu.pl](mailto:marek.tylutki@pw.edu.pl) by the deadline of **15 June 2022**.

**Selected candidates will be invited for an interview.**

The selection process will comply with the rules set by the National Science Centre, Poland. Results will be known in July 2021.

More information at: <http://tylutki.fizyka.pw.edu.pl/applications/>