

Call for PhD student in the field of ultracold atomic gases and nuclear theory

Job Description:

The successful candidate will be investigating dynamical properties of strongly interacting fermionic superfluids being far from equilibrium state. In particular, he/she is expected to pursue studies of dynamics of quantum atomic gases (vortex and soliton dynamics, quantum turbulence) and/or dynamics of neutron star interiors, within the framework of the density functional theory, in particular with its time dependent version. Inevitably, high performance computing (HPC) will be essential part of the researches. Presently we use one of the fastest computing systems, like Piz Daint (CSCS, Switzerland), Titan (ORNL, USA) and Tsubame3.0 (GSIC Center, Japan). The candidate will be also partly involved in the software development for such systems. The position assumes also very strong collaboration with our partners from USA and Japan.

The successful candidate will be employed as a research assistant within the project: *Investigation of quantum turbulence in strongly correlated Fermi systems* (National Science Center grant). It is expected that the candidate will defend his/her Ph.D. thesis within 4 years.

Requirements:

Applicants must have a M.Sc. degree, or foreign equivalent, and some experience in condensed matter theory, nuclear theory or quantum optics. We are looking for a candidate with basics knowledge of methods of many body quantum mechanics. Prospective candidate should have an interest in computational methods, and their application to solve physical problems. Knowledge of parallel programming techniques (OpenMP, MPI) or CUDA technology will be an advantage.

Employment status: Full-time, position starts July 01, 2018.

Salary: 4,500 PLN per month (untaxed scholarship).

Application details:

The applications including CV, publication list and research statement should be submitted to ntg@if.pw.edu.pl. Please include the subject 'phd student' in your email. Recommendation letter send by supervisor of M.Sc. thesis is expected.

Application deadline: May 15, 2018. Latter applications may also be considered.

Please include in your application the following statement: "In accordance with the personal data protection act from the 29th of August 1997, I hereby agree to process and to store my personal data by the Institution for recruitment purposes".

The candidate will be selected according rules of awarding scientific scholars in research projects funded by Polish National Center Science:

https://ncn.gov.pl/sites/default/files/pliki/uchwaly-rady/2016/uchwala96_2016-zal1.pdf

Contact:

For more information contact Gabriel Wlazłowski, email: gabrielw@if.pw.edu.pl

To get more information about the group profile visit:

<http://nuclear.fizyka.pw.edu.pl/>