



Job ID: #JOB10/2018

Job Description

Job Title: Post-Doc in cold atoms theory

Job Summary:

Successful candidate will be involved in realization of (Polish) National Science Center grant 'Quantum droplets' led by prof. Mariusz Gajda. Work will concentrate on theoretical studies of quantum droplets in mixtures of two component ultracold quantum gases, organized in a form of self bound objects stabilized by quantum effects. Studies will involve analysis of droplets stability, excitation spectrum, effects of finite temperature, dynamics, including collisions, merging, etc.. Collaboration with experimental groups is expected.

Job Description:

Successful candidate will implement different numerical tools and theoretical ideas in attempts to study static and dynamical properties of quantum droplets – self-bound systems of different mixtures of two species or dipolar gases. The work will be performed in a collaboration with ICFO groups: theory group of Maciej Lewenstein, and experimental group of Letticia Tarruell – experiment. Candidates with cold atom theory background are preferred. Good knowledge of quantum mechanics, in particular scattering theory, many body physics and/or mean field approaches are expected. Candidates are required to have very good numerical skills. Experience in programming and modeling of physical phenomena is very favorable. They also should have a good knowledge of English and be able to communicate and write scientific texts in this language. Moreover, s/he should be able to work and collaborate with the team.

Main research field: Physics

Sub Research Field: ultracold quantum gases

Career Stage: Experienced researcher or 4-10 yrs (Post-Doc)

Research Profile ([details](#)): Post-Doc

Type of Contract: Temporary, 12 month with possibility of extension

Status: Full-time

Salary: Depends on qualifications

From 8000 to 10000 PLN per month (before taxes).

Contact

More information can be obtained from prof. Mariusz Gajda (e-mail: gajda@ifpan.edu.pl).

(Add additional information if needed. Otherwise leave empty.)

Application details

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

Required materials:

- Curriculum Vitae
- List of publications
- e-mail addresses of two researches who agreed to write a recommendation letter
- Copy of PhD diploma

All materials should be submitted in electronic form to the address: jobs@ifpan.edu.pl with Job ID in the subject.