



## Institute of Physics of the Polish Academy of Sciences

### Scholarship for a PhD or Master Student

Job ID: #JOB52/2018

#### Job Description:

**Job Title:** Stipendist (PhD or Master Student)

#### Job Summary:

Candidate profile:

- University degree (MSc or Bachelor) in one of following disciplines: Atomic Physics, Molecular Physics, Optics, Photonics, Laser Physics, Technical Physics.
- Good spoken and written English skills
- Experience in laboratory work
- Strong motivation for scientific work, particularly laboratory work

#### Detailed Job Description:

Group of laser spectroscopy offers a possibility to enter project on laser spectroscopy of diatomic alkali molecules. The project is focused on investigation of electronic structure of selected electronic states of  $\text{Rb}_2$ ,  $\text{Cs}_2$  and  $\text{RbCs}$  molecules, including determination of corresponding molecular constants and potential energy curves.

The research methodology is based on a laser polarization labelling spectroscopy technique which allows to record high resolution spectra of the investigated molecules. The experimental resources available in our laboratories include state-of-the art laser systems, specialized detection systems and spectroscopic cells designed for production of specific alkali metal dimers. The numerical Pointwise Inverted Perturbation Approach method developed in our group enables construction of molecular potentials for investigated electronic states basing on experimental spectra, even for states with exotic shapes of potential curves.

**Main research field:** Physics

**Sub Research Field:** Optics, Laser Spectroscopy, Atomic and Molecular Physics, Laser Physics

**Career Stage:** Early stage researcher or 0-4 yrs (Post-graduate or Bachelor)

**Research Profile:** First Stage Researcher (R1)

**Type of Contract:** Temporary (18 months with possibility of prolongation)

**Status:** Full-time

**Salary:** 3000 PLN per month (untaxed scholarship).

## Contact:

More information can be found at <https://dimer.ifpan.edu.pl> or obtained from prof. Włodzimierz Jastrzębski (e-mail: [jastr@ifpan.edu.pl](mailto:jastr@ifpan.edu.pl)).

## Application details:

**Application deadline:** 31 October 2018. Later applications may also be considered.

### Required documents:

- Curriculum Vitae
- Letter of motivation
- Detailed description of experimental abilities
- Reference letter and contact data of the Author of the letter (phone number(s) and email address(es))
- List of publications, conference presentations and other achievements
- Transcript of record from undergraduate studies

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