



Centrum Studiów Polarnych

Centrum Studiów Polarnych
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PhD student position at environmental Interdisciplinary Polar Studies in Centre for Polar Studies, Leading National Scientific Centre (KNOW)

Reference No: CSP/2014/US/8

Title of PhD project:

Long-term variability of thermal and baric gradients between the Arctic and neighboring areas

Location: Centre for Polar Studies/ Faculty of Earth Sciences US

Deadline: 5th September 2014 r.

Interviews: 15th – 19th September 2014 in the chosen institute

(http://www.polarknow.us.edu.pl/wp-content/uploads/Location_CPS_partners.pdf)

In the case of students from abroad the interview will be performed in the form of video conferencing.

Mode of study: full-time

Degree to be obtained: Doctor of Philosophy in Earth Sciences, discipline – Geography

Duration: 4 years (8 semesters), from October 2014

Language: Polish and English, Polish is not obligatory for students from abroad

Scholarship: EU citizens and owners of Card of the Pole can apply for scholarships funded by the KNOW (Leading National Scientific Centre) 2 000 – 4000 PLN/month

Fees applicable: EU citizens applying on a regular basis – no fees; Non-EU citizens: 3 000 EUR per year; More information are available on website <http://admission.us.edu.pl/english/admission-rules>

Required documents and registration online: <https://www.irk.us.edu.pl/index.php>, more information: http://www.polarknow.us.edu.pl/wp-content/uploads/Resolution_No_273_conditions_and_method_of_recruitment_for_the_first_year_of_doctoral_studies.pdf

Conditions of recruitment: The final result of the completion of the candidate's higher education (up to 6 points, the conversion of diploma ratings: 6.0 (excellent) - 6 points.; 5.0 - 5 points.; 4.5 - 4 points.; 4.0 - 3 points.; 3.5 - 2 point.; 3.0 - 1 point), Foreign grading scale will be converted.

The interview will assess the candidate's intellectual level of the candidate's knowledge of English and professional level of the doctoral dissertation project (maximum 15 points). Delivery the project of doctoral dissertation (max. 2 pages) to 5th September 2014.

Requirements:

1. M.Sc. degree in geography, geology or similar. It is also possible to submit the application by those who graduate in the coming months and can provide supervisor's opinion about the current state of their M.Sc. thesis.
2. Knowledge of the problems concerning the working of the climate system in Polar Regions, synoptic climatology, dynamic climatology. Knowledge of the statistical analysis of climate data (including statistical, classification method, time-series analysis).
3. Skill in the usage of Internet meteorological and climatological databases. Skill in working with climatological databases, graphical presentation of climatological data.
4. Expertise in statistical software (STATISTICA, excellent in EXCELL, R), GIS software. Expertise in VBA program would also be an asset.
5. Organizational and teamwork abilities, confirmed by experience.
6. Ability to perform field work in difficult conditions, including work on the boat. Completed first aid training, boat handler, sailing, diving are well seen.
7. English skills sufficient for communication, reading and writing scientific papers.
8. Publications, conference presentations, and participation in past research projects are well seen.

Tasks description:

1. Developing the methodology for analysis of both thermal and baric gradients and its temporal variability.
2. Creating and updating of the climatic and meteorological database. Preparation of scientific publications.
3. Presentation of the research results during both polish and international scientific conferences.

Abstract

Being defined as large-scale system of air currents atmospheric circulation is considered one of the most important climate determinants. Both direction and velocity of the air movement depends of the thermal and pressure gradients. The magnitude of the gradients said determines the atmospheric isolation of the Polar Regions from the other localities. This has a significant impact on weather and climate conditions in the high latitudes. The main goal of this thesis is to determine long-term variability in the both air temperature and pressure gradients between the Arctic and neighboring areas on the background of current climate change.

Additional information:

1. The work will be carried out under supervision of Prof. Tadeusz Niedźwiedź (Department of Climatology, University of Silesia in Katowice), and dr hab. Ewa Łupikasza (Department of Climatology, University of Silesia in Katowice).
2. In addition to the documents required by KNOW recruitment procedures a CV and Cover Letter should be mailed to ewa.lupikasza@us.edu.pl.
3. Contact: polarknow@us.edu.pl – Leading National Research Centre (Ph.D. D. Ignatiuk)