



POGO-SPONSORED TRAINING INITIATIVE  
Report

**1. Name of grant recipient**

Ursula Schauer

**2. Title of training**

Introduction to Observational Physical Oceanography

**3. Dates of training** (e.g., 01 Jan 1999)

Start date: 28 Jan 2019

End date: 01 Feb 2019

**4. Location of training (e.g. institute, city, country)**

International Chair in Mathematical Physics and Applications (ICMPA - UNESCO CHAIR) at the University D'ABOMEY-CALAVI, Cotonou, Benin

**5. Number of trainees:** 8

**6. Final cost to POGO (in EUR):** 1074 €

**7. Other partners/funding sources**

none

**8. Provide an outline of the training course/initiative (objectives, format, topics)**

*Full programme can be included as an Appendix.*

The course provided an introduction into Observational Physical Oceanography. It extended over one week with lectures and exercises in the morning and in the afternoon. At the end, the students wrote a small exam. The scores will contribute to the overall CIPMA master assessment.

Specific topics were: Introduction into physical properties of water and of sea water; principles of in-situ measurement of temperature and salinity; observational platforms; principles of ocean currents in-situ measurements; basics of underwater acoustics and the use of acoustics for ocean observation and data transmission; search, download and use of existing data from open databases such as Pangaea, World Ocean Data Centre, Argo; introduction to Ocean Data View (ODV) for data visualisation. Introduction to oceanographic journals that provide Open Access.

**9. Provide a summary of the students' performance and how well the course was received**

*Include a summary of any formal feedback that may have been collected, and append the full survey results if applicable.*

The students performed differently. A challenge for many was that I give my lectures in English which they know from school (this year there was no English classes in the CIPMA course). Except one student from Nigeria, all students came from francophone West-African countries with their native languages being French and local African languages. But since English is the language for scientific communication they need to become more familiar with English lectures. Since I speak also French, we sometimes switched to French for clarification. My emphasis was to make sure everybody had a true chance to follow the lectures.

The students participated lively in the courses and asked back when they had difficulties in following the lectures. The fact that also the educational background of the students was very diverse, ranging from physics to engineering and overall marine environmental studies, triggered their internal discussion.

I included small exercises so that the students had a chance to check their performance, which they did with varying success.

**10. Do you have any plans for future collaboration with the students, the host institute (if applicable) or for future editions of the training course?**

The organisers of the CIPMA master course in Physical Oceanography intend to continue the program. I would like to contribute again a one-week course in observational oceanography. Future collaboration might occur for those students who participate in the POGO CoE master course (currently held at AWI Helgoland). Typically each year one of the absolvents of the CIPMA course successfully apply for the POGO CoE.

**11. List of trainees**

Please fill in the attached Excel spreadsheet with the list of trainees.

List is attached.



Students discussing the problems for determination of salinity arising from the thermal inertia of temperature and conductivity sensors.