

Position Offered: PREDOCTORAL RESEARCHER

Project: *TETRIS: digital Tools for massivE daTa pRocessing in FIsheries AcousticS: leveraging repository access and global inferences*

Technological and scientific fields: Massive data, Cloud computing, Artificial Intelligence, Advanced data analysis, Climate change and biodiversity, distributed computing.

Location: Palma, Islas Baleares, COB, Muelle de Poniente s/n 07015 <http://www.ba.ieo.es/>

Research Group/PI: ACUSDEEP, Marian Peña, <https://marianpena.github.io/ACUSDEEP/> part of multicentre group BEME, Mikel Latasa, <https://bemegroup.github.io/BEME/>

PROJECT SUMMARY

The project TETRIS aims to leverage the compilation and processing of large acoustic databases from public online repositories, which will improve the temporal and spatial scale of fishery acoustics, facilitating greater accuracy in the study of ecological processes influenced by climate change. TETRIS is a collaboration between IEO-CSIC (Marian Peña), University of Washington in Seattle (Wu-Jung Lee), NOAA (Carrie Wall) and Universitat de les Illes Balears (Carlos Guerrero). The three main objectives of the project are: 1) Development of acoustic downsampling algorithms, 2) Massive integration of data from acoustic repository networks and 3) Data mining and associating information from net and acoustic mesopelagic data.

PROFESSIONAL PROFILE

Minimum requirements:

- Degree in marine science, physics or similar
- Proficiency in English required
- Disponibility to work in the USA for two internships
- High proficiency in programming languages, particularly Python

Merits to be considered:

- Previous experience in Fisheries acoustics
- A basic knowledge of Spanish is advisable
- Experience with algorithm development, cloud computing and machine learning
- Master in related subjects

WHAT IS OFFERED

The 4-year PhD will be based in Palma, Spain, but training includes two international internships at the University of Washington in Seattle (ML and scalable acoustic processing workflows) and at NOAA (acoustic repositories, cloud computing). Training on cloud computing will also be provided by the University of Baleares: master in Mass Data Analysis and Intelligent Systems (<120 ECTS) and a 1-month internship. Possibility to participate in research surveys. Acces to the NOAA cloud AWS and close collaboration with the UW team on development of open access acoustic tools. Participation in international conferences and working groups.

Contract conditions:

Predocctoral Researcher contract of 4 years' duration. Gross annual salary of 23,871.33 €.

Start of contract: before 31 December 2024

PRINCIPAL INVESTIGATOR CONTACT

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