A CASE STUDY ON THE TEACHING OF PHYSICS OF SOUND AND ACOUSTICS IN BRAZILIAN FEDERAL PUBLIC UNIVERSITIES

Roberto Barreto de Moraes[a] and Deise Miranda Vianna[a,b]

Presenting Author: Roberto Barreto de Moraes (rbarmoraes@gmail.com)
[a]Programa de Pós-Graduação em Biociências e Saúde, Instituto Oswaldo Cruz, Rio de Janeiro, RJ, CEP: 21040-900, Brazil
[b]Instituto de Física, Universidade Federal do Rio de Janeiro, Rio de Janeiro, RJ, CEP: 21941-972, Brazil

KEYWORDS: Acoustics, Physics Teaching, University Education

Acoustics and the Physics of Sound are interdisciplinary subjects that can involve many different areas of study, such as Physics, Engineering, Architecture, Urbanism, and Environment Education. In Brazil, most of the research studies and development works in Acoustics come from postgraduate programs of federal public universities, especially mechanical engineering ones, and there is only one specific undergraduate course of Acoustical Engineering in the country, offered by the Federal University of Santa Maria. The absence of studies about the institutions that research Acoustics and Physics of Sound motivated the present systematic bibliographic work, aiming to verify which are the undergraduate and postgraduate courses in Physics, Engineering, and Architecture in Brazilian federal public universities that offer disciplines related to this area. The methodology for the analysis used databases: the *Sucupira* platform of the *CAPES* institution (a branch of the Brazilian Ministry of Education) and the *Lattes* platform of the *CNPq* institution (a branch of the Brazilian Ministry of Science and Technology); in which all the evaluated and recognized undergraduate and postgraduate programs in Brazil are included. The conclusions made it possible to identify the concentration of courses on acoustics and physics of sound, providing scope for different analyses, such as discussions about curriculum contents, the deficiencies in student formation in the area, and the paths for collaborative scientific interactions in this area of knowledge.

Proceedings of the IUPAP International Conference on Physics Education, ICPE 2022 5-9 December 2022, page 73, ISBN: 978-1-74210-532-1.