



How do volcanoes communicate? PIISA Project: approaching research in volcanoes to Secondary School Science Education.

Araceli García Yeguas (1,2), Luz García Martínez (3), Sonia Mota Fernández (3), Janire Prudencio (4), Luciano Zuccarello (4), Mercedes Vázquez Vélchez (1), Susana Rams Sánchez (1), David Aguilera Morales (1), and Jesús M. Ibáñez (4)

(1) University of Granada, Department of Science Education, Spain (araceligy@ugr.es), (2) Andalusian Institute of Geophysical. University of Granada, Spain, (3) Department of Communication and Signal Theory. University of Granada, Spain, (4) Department of Theoretical Physics and Cosmos. University of Granada, Spain

PIISA project is a collaboration between University of Granada, the Higher Council for Scientific Research and the Delegation of Education in Granada. This project aims to present and involve Secondary School students of Andalusia (Spain) in the research projects led by scientists of recognized prestige. This project allows the students to explore their possible vocation for scientific career. The students meet with the researches four times from November to April. In May, all the students will show in a meeting the research that they have done. A work team of University of Granada with experts of Geophysics, Signal Theory and Experimental Science Education proposed this project: How do volcanoes communicate? In Nature communication exists between people, animals, plants; however, can a volcano communicate? The answer is yes. Volcanoes communicate their status through seismo-volcanic events. These seismic events, as with other languages, it is necessary to interpret them in order to understand them. This project proposes to teach students to interpret these events, helping to complete a database that is still under construction, to extract knowledge of the state of different volcanoes in the world. The students will be integrated into the work team to make their research work.

This work is supported by the following research projects: TEC2015-68752 (KNOWAVES, MINECO/FEDER); European Union's Horizon 2020 Research and Innovation Programme Under the Marie Skłodowska-Curie Grant Agreement no 798480.