

Fully-funded PhD scholarship on *aeroacoustic and hydrodynamics of chimney-type musical instruments*

We are currently looking for candidates for a fully-funded PhD scholarship on hydrodynamic instabilities in flute-type musical instruments. Despite the longevity and universality of wind instruments, precise physical models of how music is produced is lacking. This scholarship provides the opportunity to develop advanced theoretical and numerical tools for the study of musical instruments from mouthpiece to listener.

The successful candidate will join the research team involved in the project *aeroacoustic and hydrodynamics of chimney-type musical instruments*, funded by the Spanish Government. He/she will conduct the PhD research work in the Mathematical Engineering group at the School of Engineering at UCA under the supervision of Dr. Rodolfo Ostilla Mónico and Dr. Miguel Fosas de Pando. The candidate is expected to collaborate actively with researchers from other participating universities and will benefit from local and national supercomputing resources.

Profile: Candidates must have a strong background in Fluid Mechanics and Applied Mathematics. They are expected to hold a Master's degree in Aerospace Engineering, Mechanical Engineering, Mathematics, Physics or an equivalent degree. Previous experience in Scientific Computing will be highly valued. The PhD will be conducted in English due to the international scope of the project. Knowledge of Spanish is desirable but not indispensable.

Conditions: Fully funded PhD position for EU nationals and overseas. The scholarship includes tuition fees, stipend of 18 700€/yr the first year, up to 4 years, and funds for short-term research stays abroad. The candidate is expected to join UCA in the first three months of 2024. The university is based in Cádiz, the four-millennial city on the west coast of Andalusia, which features a vast historical heritage in close connection with its natural environment.

Applications: Applications must be submitted, prior registration, through the website <https://sedelectronica.uca.es/procedimientos/?proc=415>

Deadline: Thursday 16th November, 2023.

For further information or assistance through the application process do not hesitate to contact Dr. Rodolfo Ostilla Mónico (rodolfo.ostilla@uca.es).

