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POSTDOCTORAL POSITIONS IN EXPERIMENTAL FLOW CONTROL AND AEROACOUSTICS

The Flow Control Laboratory at the Florida Center for Advanced Aero-Propulsion (FCAAP) is seeking postdoctoral researchers to join the research group of Professor Cattafesta in the areas of experimental flow control and aeroacoustics. FCAAP is a State Center of Excellence in the area of fluid dynamics, acoustics, and propulsion. FCAAP works closely with industry and U.S. funding agencies to offer outstanding opportunities for highly qualified and motivated researchers to conduct leading-edge research.

The focus of our aeroacoustics research is to (1) investigate the origins of aerodynamic noise sources associated with airframe noise (high-lift systems, landing gear, etc.) and propulsion (i.e., jet) noise by conducting experiments in various facilities, such as the anechoic wind tunnel (<https://ame.fsu.edu/facilities/wind-tunnels/anechoic-wind-tunnel/>) and (2) develop novel acoustic liners to absorb sound over a wide frequency range. The focus of our flow-control research is to develop and employ physics-based active flow control approaches to, for example, eliminate flow separation, attenuate wing-tip vortices, and suppress oscillations. We also model and develop actuators & sensors and novel instruments and specialize in the implementation of real-time feedback control schemes. Our experimental research leverages state-of-the-art experimental diagnostics and facilities. We frequently collaborate with colleagues around the world who are experts in theoretical methods and numerical simulations.

Qualified candidates will possess a Ph.D. in engineering along with relevant experimental research experience in a laboratory environment. Candidates should have a demonstrated record of original contributions in their research field. A background in fluid dynamics and/or aeroacoustics is required. Experience with application of image-based flow diagnostics, surface measurements, random data analysis, and phased-array measurements is highly desirable. Familiarity with modal analysis in fluid dynamics (POD, DMD, resolvent, etc.) and beamforming methods are beneficial. Strong verbal and written communication skills in English and the ability to work effectively within an interdisciplinary research team are required.

Applications are sought from innovative and highly-motivated individuals interested in working in a dynamic environment with leading researchers in the areas of experimental flow control and aeroacoustics. The position is anticipated to be a two-year appointment, with a possibility for extensions. Interested applicants should e-mail a cover letter, C.V., doctoral dissertation abstract, and abstracts of at most two relevant papers/manuscripts that you have (co)authored recently, and a list of 3 references to Professor Cattafesta (lcattafesta@eng.famu.fsu.edu).