

Dr. Tejada-Martínez Receives NSF CAREER Award



(August 7, 2009) — Dr. Andrés Tejada-Martínez, assistant professor in the Department of Civil and Environmental Engineering in the College of Engineering, received a \$480,000 National Science Foundation award for his proposal titled CAREER: Parameterizations of Langmuir Turbulence in Shallow Water.

This multidisciplinary grant is being co-funded by the Engineering, Geosciences and Cyber Infrastructure Directorates.

The Faculty Early Career Development (CAREER) Program is a Foundation-wide activity that offers the National Science Foundation's most prestigious awards in support of junior faculty who exemplify the role of teacher-scholars through outstanding research, excellent education and the integration of education and research within the context of the mission of their organizations. Such activities should build a firm foundation for a lifetime of leadership in integrating education and research.

“I am honored and excited to have received an NSF CAREER Award to advance my work in numerical simulations of oceanic turbulence and its impact on physical, chemical, and biological processes in coastal regions,” said Dr. Tejada-Martínez. Better understanding of these processes will eventually lead to improved regional and global climate prediction models.”

Tejada-Martínez’s integrated research and educational program will promote environmental fluid mechanics and computational science. A citizen science network will be established to record surface characteristics of foam and flotsam patterns associated with wave-, wind- and tidal-driven turbulent flows throughout Tampa Bay. This network will increase public awareness of turbulent mixing and its influence on processes such as gas transfer across the air-water interface, mixing of pollutants and harmful algal blooms (red tides).

The University of South Florida is one of the nation's top 63 public research universities and one of only 25 public research universities nationwide with very high research activity that is designated as community engaged by the Carnegie Foundation for the Advancement of Teaching. USF was awarded \$380.4 million in research contracts and grants in FY 2008/2009. The university offers 232 degree programs at the undergraduate, graduate, specialist and doctoral levels, including the doctor of medicine. The USF System has a \$1.8 billion annual budget, an annual economic impact of \$3.2 billion, and serves more than 47,000 students on institutions/campuses in Tampa, St. Petersburg, Sarasota-Manatee and Lakeland. USF is a member of the Big East Athletic Conference.

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