Enhancing Physics Graduate Education and Research Opportunities at the University of Central Florida

Talat S. Rahman

Department of Physics, University of Central Florida

In the past decade student enrollment at UCF has doubled, making it the sixth largest and fastest growing university in the country. This rapid growth coupled with a commitment from UCF administration and the State of Florida to enhance graduate education and research, provides the Department of Physics with unique and unprecedented opportunities and challenges. For example, the neighboring Research Park (established through UCF’s Office of Research and Contract) and several on-campus research and education centers (Center for Research and Education in Optics and Lasers (CREOL), Advanced Materials Processing and Characterization (AMPAC), Nanoscience and Technology Center (NSTC), etc) in areas related to physics, offers graduate students and faculty plenty of opportunities for interdisciplinary research and education. The challenge for the Physics Department is to leverage these excellent infrastructural and collaborative research environments into the strengthening of its own graduate program. A number of excellent recent hires add to already established programs in condensed matter (hard and soft), mathematical, biological, nanoscale, and atomic, molecular and optical (AMO) physics. In addition there is a strong effort in astronomy and planetary sciences. The department has embarked on several strategies for recruiting and retaining graduate students. Offering opportunities for internship in local industries, for participation in international collaboration through extended visits, for community building through outreach activities, and for interdisciplinary PhD research through co-advisement are among some. Exchange programs with PhD students in several countries have also been initiated recently. Proposals for closer interactions with the new College of Medicine and offering of a masters program in medical physics will also be presented. Successes and failures of some of the approaches will be discussed, while realizing that with only 10 years of existence we cannot provide a robust data set.