

CURRICULUM VITAE

Pritish Mukherjee

Contact information:

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Strategic Talent Recruitment, University Reputation and Impact
University of South Florida
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EDUCATION

<u>Institution</u>	<u>Field of Study</u>	<u>Degree</u>	<u>Date</u>
State Univ. of New York at Buffalo <i>(Dissertation: A Picosecond Laser Study of the Vibrational Quasicontinuum of Polyatomic Molecules)</i>	Electrical Engineering	Ph. D.	1987
State Univ. of New York at Buffalo <i>(Thesis: A Study of Calcium-induced Aggregation of Phospholipid Vesicles by Dynamic Laser Light Scattering)</i>	Physics (Bio-physics)	M. A.	1984
University of Delhi, India <i>(Specializations: Field Theory & Quantum Electrodynamics; General Relativity & Cosmology)</i>	(Theoretical) Physics	M. Sc.	1978
University of Delhi, India	Physics	B.Sc.(Hons.)	1976

ADMINISTRATIVE APPOINTMENTS

July 2017 – Present	Vice Provost and Associate Vice President for Strategic Talent Recruitment, University Reputation and Impact, University of South Florida, Tampa
Oct. 2016 – June 2017	Senior Advisor to the Provost on Higher Education Policy, Data Analytics and Strategic Improvement, University of South Florida, Tampa
Aug. 2003 – Aug. 2015	Chair, Department of Physics, University of South Florida, Tampa
Aug. 1997 – July 2002	Director of Graduate Studies, Department of Physics, University of South Florida, Tampa

ACADEMIC AND POSTDOCTORAL APPOINTMENTS

Aug. 2001 – Present	Professor of Physics, University of South Florida
Aug. 1994 - July 2001	Associate Professor of Physics, University of South Florida
Aug. 1988 - July 1994	Assistant Professor of Physics, University of South Florida
Mar. 1987 - Aug. 1988	Postdoctoral Research Fellow, Los Alamos National Laboratory
Dec.1986 - Mar. 1987	Postdoctoral Research Assistant, State University of New York at Buffalo

FELLOWSHIPS, HONORS AND AWARDS

Inducted to National Academy of Inventors, 2011
Inducted to USF Academy of Inventors, 2009
USF President's Award for Faculty Excellence, 2003
Florida State University System Undergraduate Teaching Incentive Award, 1997
Florida State University System Undergraduate Teaching Incentive Award, 1994
Outstanding Undergraduate Teaching Award, University of South Florida, 1993
Research Initiation Award, National Science Foundation, 1992
Research and Creative Scholarship Award, Research Council, USF, 1991
National R&D 100 Award, 1990
Research and Creative Scholarship Award, Research Council, USF, 1988
Postdoctoral Fellow at Los Alamos National Laboratory, 1987-88

CURRENT AND PAST PROFESSIONAL MEMBERSHIPS

Member, American Physical Society (APS)
Member, Optical Society of America (OSA)
Member, American Association for the Advancement of Science (AAAS)
Member, Institute of Electrical and Electronics Engineers (IEEE)
Member, Planetary Society of America

SUMMARY OF PUBLICATIONS

Authored / co-authored 278 papers published in refereed scientific journals, or presented at refereed or invited scientific conferences in the areas of materials physics, applied laser physics, chemical physics, nonlinear semiconductor physics and biophysics, including 116 peer-reviewed articles. 3 U.S. patents issued and 3 pending.

GRANTS AWARDED

A total of \$6,169,105 of external funds have been received as PI or co-PI, of which \$5,514,568 is peer-reviewed Federal grant support. A listing of the grants received follows:

- P. Mukherjee, G. S. Nolas, H. Srikanth and S. Witanachchi, Continuation to "Design, Fabrication, Characterization and Modeling of Integrated Functional Materials", Department of Defense, Grant # W81XWH, \$700,000, 9/31/10 – 9/30/15.
- P. Mukherjee and S. Phillpot, "Florida Cluster for Advanced Smart Sensing Technologies (FCASST) – a USF/UF Collaborative Research Cluster", Florida State University System Board of Governors' New Florida 2010 Award, \$500,000, 2010-2012.
- P. Mukherjee, G. S. Nolas, H. Srikanth and S. Witanachchi, "Design, Fabrication, Characterization and Modeling of Integrated Functional Materials", Department of Defense, Grant # W81XWH-07-1-0708, \$2,531,000, 9/31/07 – 9/30/12.

- G.S. Nolas, P. Mukherjee and S. Witanachchi, DOE, “A Fundamental Study of Bulk and Thin Film Type II Clathrate Materials”, United States Department of Energy, \$495,457, 8/15/04 to 8/31/08.
- P. Mukherjee and S. Witanachchi, "Pulsed thermal excitation of self-assembled nanotemplates for manufacturing dimensionally controlled nanostructured films", National Science Foundation, \$378,392, 9/1/02 to 8/31/05.
- S. Witanachchi and P. Mukherjee, " A Fundamental Study of Laser-Triggered Multiple Hollow-Cathode Transient Plasmas for a Multi-Component Film Manufacturing Process", National Science Foundation, \$347,430, 9/1/00 to 8/31/03.
- P. Mukherjee and S. Witanachchi, "In-situ Fabrication of Diamond Structures for Microelectromechanical Systems (MEMS) using a Novel Pulsed Laser Process", National Science Foundation, \$335,013, 9/1/99 to 8/31/02.
- P. Mukherjee and S. Witanachchi, "Pulsed Laser Ablation for Manufacturing: A Novel Dual-Laser Film Growth Process", National Science Foundation, \$258,735, 12/1/96 to 11/30/99.
- S. Witanachchi and P. Mukherjee, "Experimental and Theoretical Investigation of Dual-Laser Ablation for Stoichiometric Large-Area Multicomponent $\text{CuIn}_{1-x}\text{Ga}_x\text{Se}_2$ Film Growth", United States Department of Energy, \$368,541, 8/15/96 to 8/14/99.
- “Fundamentals of Natural Science for Non-Science Students”, National Science Foundation, \$100,000, 2/20/95 to 4/30/98. (co-PI with Profs. Henry Mushinsky, Biology; H. Len Vacher, Geology; Jay Worrell, Chemistry)
- P. Mukherjee, “Plasma-Assisted Pulsed Laser Deposition of High Temperature Superconducting Thin Films: Novel Optical Plume Diagnostics”, National Science Foundation, Research Initiation Award, \$100,000, 9/1/92 to 8/31/95.
- P. Mukherjee, “Investigation of a Saturation-Free, Linearly Variable Gas Attenuator at $10.6 \mu\text{m}$ ”, Hughes Aircraft Company, Electro-Optical and Data Systems Group, \$54,537, 3/5/91 to 3/4/92.
- P. Mukherjee, “Laser Ablation of Tissue Using Picosecond Laser Pulses”, Research and Creative Scholarship Award, Research Council and Division of Sponsored Research, USF, \$6,500, 1/1/91 to 6/30/92.
- P. Mukherjee, “Ultrafast Nonlinear Carrier Generation in Semiconductors Using Picosecond Laser Pulses”, Research and Creative Scholarship Award, Research Council and Division of Sponsored Research, USF, \$3,825, 12/1/88 to 12/31/89.

UNIVERSITY AND DEPARTMENT LEADERSHIP POSITIONS

Vice Provost and Associate Vice President, Strategic Talent Recruitment, University Reputation and Impact, University of South Florida, Tampa (July 2017-present)

In this new position reporting to the Provost, I work across administrative areas to provide leadership for strategic initiatives and collaborative interactions that encompass multiple aspects of functioning of the Provost's Office. The goals for this position are all directly aligned with the strategic goals of the university in terms of student success, research and innovation, and fostering partnerships.

I have the opportunity to work with all members of the Provost's Leadership Team and a large fraction of the staff in the Provost's Office on a variety of initiatives. Through my work on university and department rankings, as well as other college-centered initiatives, I have developed productive working relationships with college deans in Academic Affairs and academic units in USF Health. Co-chairing the USF Tampa Strategic Plan, and more recently, the USF Consolidation and Implementation Committee has provided a great opportunity to work directly with faculty members across all three campuses of USF on issues of their concern.

Specific responsibilities of the position include:

- Conduct analyses and develop techniques and tactics to enhance USF Tampa's national and global reputation and rankings, consistent with our values and strategic vision,
- Support USF Tampa's integrated strategic planning initiatives in partnership with the Vice Provost for Planning, Performance, and Accountability,
- Provide strategic oversight for academic talent recruitment (including students and faculty) at USF Tampa, and
- Serve as the Provost's primary liaison with the USF Office of Research and Innovation.

Accomplishments and Activities:

The following are some examples of activities that I have led or collaborated in during the course of my service in the Provost's Office:

- *co-Chair, Consolidation Implementation Committee (CIC), 2018-2019*
The Florida Excellence in Higher Education Act of 2018 mandates consolidation of separate accreditations held by USF Tampa with those of its sister institutions of USF St. Petersburg and USF Sarasota-Manatee, to create a singly-SACSCOC accredited University of South Florida. I co-chaired this 86-member committee with Dr. Donna Petersen to help develop a plan for consolidation of the three USF

- campuses. This included detailed plans for consolidation of faculty affairs, general education and curriculum alignment, research, business & finance, external affairs and student success. Work on this concluded with the submission of the Consolidation Implementation Plan & Timeline document to the State University System Board of Governors on March 15, 2019.
- *Member, USF Accreditation Steering Committee, March 2019-present*
Appointed to this 5-member committee by President Judy Genshaft to coordinate and oversee the substantive change prospectus submission for single accreditation for USF to SACSCOC by March 15, 2020 and a successful follow-up site visit during the fall of 2020.
 - *co-Chair, USF Tampa Strategic Plan, 2019-2024*
I co-chaired this 58-member Strategic Planning Committee with Vice Provost Terry Chisolm to develop the next five-year strategic plan for USF Tampa to succeed the current 2013-2018 plan.
 - *Steering Committee Member and co-Chair, Program Planning Committee for Young University Summit co-sponsored by Times Higher Education (2017-2018)*
Brought the Times Higher Education (THE) Young Universities Summit to North America for the first time on June 5-7, 2018. Developed the technical program along with Vice Provost and USF System Vice President for USF World Roger Brindley, and assumed operational responsibilities in all aspects of the summit from marketing to travel to event planning. Two significant institutional accomplishments related to the summit were the organization and chairing of a pre-summit workshop and a post-summit meeting regarding the formation of a new network of North American universities.
 - *Executive Leadership Group, Comprehensive Communication Campaign*
I serve on this group along with Associate Vice President Cindy DeLuca, Vice President Paul Dosal, System Vice President/CIO Sidney Fernandes, Vice Provost Roger Brindley, and Vice President and Chief Marketing Officer Joe Hice. The group is focused on providing strategic oversight of student recruitment at all levels of engagement from prospects to students arriving on campus.
 - *Faculty Recruitment including World Class Scholars' Recruitment*
I work closely with Senior Vice Provost Dwayne Smith on strategies related to faculty recruitment.
 - *Participation on BOG Subcommittee on Academic and Research Areas of National Excellence*
This subcommittee was set up by the BOG to develop a plan to identify programs of excellence throughout the State University System per Subsection (7) of Section 1001.7065, 2018 Florida Statutes: "The Board of Governors shall establish standards and measures whereby individual undergraduate, graduate, and professional degree programs in state universities which objectively reflect

national excellence can be identified and make recommendations to the Legislature by September 1, 2018, as to how any such programs could be enhanced and promoted.” I represented Provost Wilcox who was appointed as one of a six-member Steering Committee, and worked with other provosts and vice presidents for research in the SUS to develop a plan to identify programs of excellence. The resultant SUS BOG “Programs of Excellence Report”, September 2018 is available at:
https://www.flbog.edu/documents_meetings/0273_1154_8738_10.3.2%20AREC%2003b%20Programs%20of%20Excellence%20Report_CE.pdf.

- *Campus-wide Class Size Reduction Initiative*
I led this initiative, at the request of the Provost, to explore with colleges across campus ways to reduce class sizes strategically. I helped develop the strategic guiding principles for this initiative aimed at both helping our position in national rankings as well as, more importantly, providing students the individualized attention that they need for successful completion of their degree programs. The initiative resulted in a 14% decrease in class-sizes across the USF Tampa campus in Fall 2018.
- *Provost’s Office Tenure and Promotion Reviews*
Annually assist, along with other selected members of the Provost’s senior leadership, in evaluating tenure and promotion applications after they have been reviewed by the colleges to provide input for the Provost and President’s decisions.
- *Collaboration on University Rankings with Office of Decision Support*
This is an ongoing activity with the Office of Decision Support to provide continuous strategic input into USF’s rankings on global and national measures. In particular, I work closely with Assistant Vice President Valeria Garcia, Director Mike Bolen and their team to understand rankings as they are announced and to provide an analytical perspective as a precursor to policy decisions.
- *Member, USF System Performance-Based Funding Accountability Team*
I am a member on this PBF team chaired by Provost Ralph Wilcox. I have worked directly in providing strategic input to our efforts to meet Performance-Based Funding (PBF) and Emerging/Preeminence metrics. In particular, the analysis of a wide variety of global and national rankings of USF and our peers, and the tactical use of data analytics, has now placed us at the forefront in assessing rankings, metrics and indicators to effect strategic values-based institutional improvement as we strive to enhance institutional reputation through increased faculty and student success.
- *Member, USF Brand Council*
I serve on this Council chaired by Director of UCM Joe Hice. I have contributed strategic insight into the role branding should play in helping us improve in

institutional reputation as one of the primary metrics influencing both global and national rankings of USF.

- *Member, Search Committee for Marketing Firm*
I participated actively as a member of this committee and attended presentations by the top four selected marketing agencies. After deliberations, SPARK was chosen as the agency of choice to help develop and introduce the new USF brand to the world.
- *Member, COEDU Visioning Workgroup, “A New and Better Future for the College of Education” Committee*
I participated as a member of this committee convened by Provost Wilcox to consider declining enrollments in the College of Education at USF and develop a plan for the future. The committee was chaired by Dean Julie Serovich of BCS. My principal contribution was an in-depth historical analysis of the graduate programs of the College of Education based on productivity metrics. This analysis formed the basis for a detailed report written by the committee addressing the existing issues with the College of Education and a detailed roadmap for the future that would preserve the college. During the course of service on this committee, I was privileged to make meaningful contacts with COEDU faculty members and develop an appreciation for their existing strengths and challenges.
- *Member, College of Education Transformation and Implementation Workgroup*
At the conclusion of the “New and Better Future for the College of Education Committee” a subset of members were tasked with taking the detailed report generated by the committee and distill the essence into a much more succinct and actionable implementation plan for the transformation of the COEDU. We accomplished this task and forwarded our recommendations to Interim Dean Roger Brindley.
- *Member, College of Education Deans’ Search Committee*
I served on this committee chaired by Dean Julie Serovich. We screened candidates, did Skype interviews, followed by on-campus visits. The committee concluded its task by recommending Prof. Robert Knoeppel who was recruited as the new Dean of the COEDU.
- *Analysis of College of Business Rankings*
At the invitation of Dean Moez Limayem, I performed a detailed analysis of the rankings of the Muma College of Business in a variety of subjects, including their position related to a ranking of MBA programs. I presented these results to the Dean, Associate Dean Kaushal Chari and Prof. Balaji Padmanabhan with recommendations for future action.

- *Archivum Faculty Information System*
A new system has been created on Archivum to house the Faculty Information System, including the tenure and promotion module. I work collaboratively with Vice Provost Terry Chisolm, who is leading this project, and Innovative Education, providing training tools for faculty members, to review progress periodically.
- *Transforming Graduate Admissions at USF: An Archivum Platform*
I led the successful development of the new graduate admissions platform on Archivum from zero-planning to the beta phase of implementation. Work on this project has concluded.
- *Research Liaison with Office of Research and Innovation*
I serve as the liaison between Academic Affairs and the Office of Research and Innovation. In this capacity, I meet regularly with Dr. Rebecca Puig, Senior Associate VP, Research and Innovation to discuss academic issues connected with the research enterprise, and suggest needed policy responses.
- *Member, USF Research Advisory Committee (2015-present)*
I was invited to serve on this committee by Dr. Paul Sanberg, Senior Vice President for Research, Innovation and Economic Development in 2015. We meet to discuss general policy related to administration of research at USF and in particular, are charged with developing guidelines and selecting recipients of the strategic pool of USF R&I funds. Service on this committee is ongoing.

Creative Contributions:

During my time in the Provost's Office, I am particularly proud of specific creative projects that I have been able to conceive, initiate and nurture. Examples of these include:

- *Outreach to High School Guidance Counselors*
Initiated an e-mail campaign reaching out to over 6000 high school guidance counselors to establish a working relationship with them through the development of a guidance counselors' toolkit. This initial e-mail resulted in a noticeable shift in institutional reputation and movement upwards in our national rankings. More importantly, Innovative Education has now taken this over as a campaign that is a cornerstone of our outreach efforts related to undergraduate student recruitment.
- *USF Nexus Initiative and UNI Awards*
In an effort to enhance faculty success and increase institutional reputation, I conceived and implemented a USF Nexus Initiative (UNI) as a variety of connections (or partnerships) that could link USF faculty to opportunities offering enhanced intellectual and infrastructure exposure. The first of these initiatives, the UNI Travel Awards were launched in 2018, providing 33 faculty members the

opportunity to travel to a global (or national) site of their choosing and establish a research connection with a colleague for one year. An RFP for the second round of these awards has been sent to all three campuses of USF on March 18, 2019.

- *Predictive Analytics for University Rankings*
Detailed quantitative analysis of national rankings such as the US News and World Report rankings have enabled individual metric-based predictive capabilities that are strategically useful in optimal institutional improvement and resultant rankings.
- *Development of University Ecosystem approach to Strategic Planning: Conception of POEM*
I conceived a novel way to visualize the organizational structure of a university as an ecosystem and used this approach to gain insight into the portions of the university ecosystem probed by different rankings, metrics and indicators. This qualitative approach has now been supplemented with a quantitative methodology that allows detailed numerical insight into various aspects of the university ecosystem, including correlations between distal parts. This analysis can help greatly in strategic decision-making related to institutional development that need not be rank specific, but more values-based. A disclosure of invention was filed with the USPTO in May 2018 for this novel concept, referred to as Performance of Organizational Ecosystem Mapping (POEM).
- *Development of a North American Young Research Universities Network (NAYRUN)*
I chaired a workshop on June 5, 2018 prior to the Times Higher Education Young Universities Summit at USF Tampa with participation from the Young European Research Universities Network (YERUN) and the Australian Technology Network (ATN) of universities. This workshop was co-facilitated by the President and a member of the Executive Board of YERUN (Juan Romo, President of University Carlos III Madrid and Dr. Anthony Forster, Vice Chancellor of the University of Essex, respectively) and Ms. Renee Hindmarsh, the Executive Director of ATN. Post-YUS Summit, I chaired a meeting of interested North American universities, with participation by Ms. Hindmarsh and Executive Director, Ms. Silvia Recio of YERUN. NAYRUN now has a Steering Committee with membership from seven universities in Canada and USA. The next meeting of NAYRUN is scheduled for May 27-28, 2019 at Concordia University, Montreal. This project is ongoing.
- *Identification of Academic Areas of Research and Academic Excellence*
Initiated by an invitation from Provost Wilcox to join the BOG Research and Academic Excellence Workgroup identifying academic degree programs of excellence for SUS universities, I got the opportunity to develop a framework that connects broad areas of research to underlying degree programs through a decision-tree-like structure. Upon compiling this information institution-wide, we have identified nine areas of interdisciplinary excellence with contributions from

multiple colleges in each area. This has generated, for the first time, an asset map of research excellence at USF that can serve strategic institutional decision-making regarding effective areas of collaboration and future faculty hiring. This approach is scalable to SUS-wide research and academic interactions.

Senior Advisor to the Provost on Higher Education Policy, Data Analytics and Strategic Improvement, University of South Florida, Tampa (October 2016 – June 2017)

The responsibilities of this position included:

- Developing data-informed institutional strategies for improving university rankings.
- Providing leadership (in advising Vice Presidents, Deans and Department Chairs / Directors) with regard to designing and executing change for gains in institutional performance and rankings.
- Collaborating closely with the Office of Decision Support to develop a better understanding of USF's current position in select national/international rankings.
- Identifying the time cycle and sources for submission and/or extraction of data used in selected institutional rankings, and identifying values-based strategies for improving USF's reporting and rankings.
- Identifying low-cost and high-impact strategies for improved reporting and performance accountability, considering the cost benefit and unintended consequences of these and other actions.
- Monitoring the effect of changing institutional behavior on USF's national and international rankings.

Chair, Department of Physics, University of South Florida, Tampa (August 2003-July 2015)

During three consecutive four-year terms as Chair, I was privileged to work with faculty and staff to lead the Department of Physics through a period of significant growth in student credit hours generated, doctoral student enrollment, annual degrees awarded, external research funding, faculty size, peer-reviewed publications, and departmental impact as evidenced by citations and faculty and student awards. The Department relocated to improved research and teaching facilities in the seven-story Interdisciplinary Sciences Building. The cumulative efforts of the faculty elevated the ranking of the department from the bottom-quartile to the top-third in the nation during this period. Some of these accomplishments are detailed in the following synopsis.

Synopsis of Departmental Progress during Service as Physics Chair (2003-2015)

Physics faculty and staff recruitment, promotion and retention (2003-2015):

- 28 faculty members were recruited (including 5 women faculty members)
- 9 new staff members were recruited
- 24 of 32 Physics faculty members at the end of Summer 2015 (75% of then current Physics faculty) were recruited during this period
- 14 faculty members were tenured
- 13 faculty members were promoted to Associate Professor
- 7 faculty members were promoted to Full Professor
- 1 recognized as Distinguished University Professor
- 4 faculty members were promoted to Instructor (Level II)

Major awards and recognition for Physics faculty members:

- AAAS Fellowship (Prof. George Nolas)
- OSA Fellowship (Prof. Paul Kim)
- APS Fellowships (Profs. George Nolas & Hari Srikanth)
- Sloan Research Fellowship (Dr. Jiangfeng Zhou)
- TUM-IAS Hans-Fischer Junior Fellowship (Prof. Matthias Batzill)
- NSF CAREER Awards (Drs. Matthias Batzill, Casey Miller, Inna Ponomareva, Andreas Muller & Humberto Rodriguez Gutierrez)

Representative significant recognition for Physics students:

- 3 students invited to the 62nd Physics Nobel Laureates' Conference, Lindau, Germany (Aaron Landerville, Joseph Fogarty & Evan Lafalce)

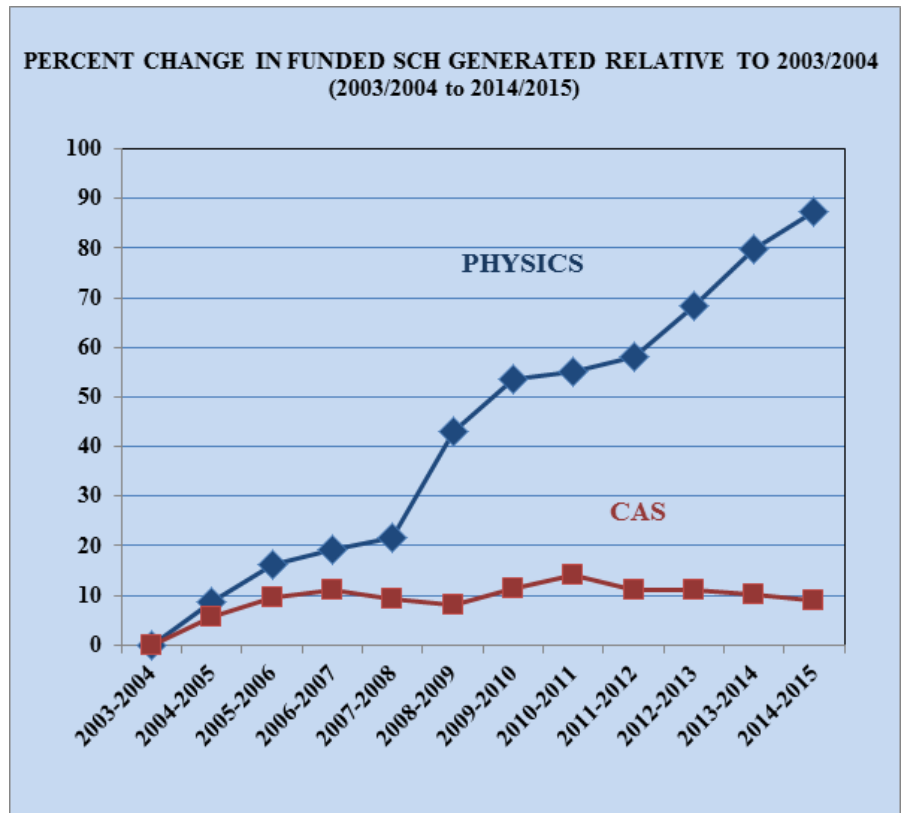
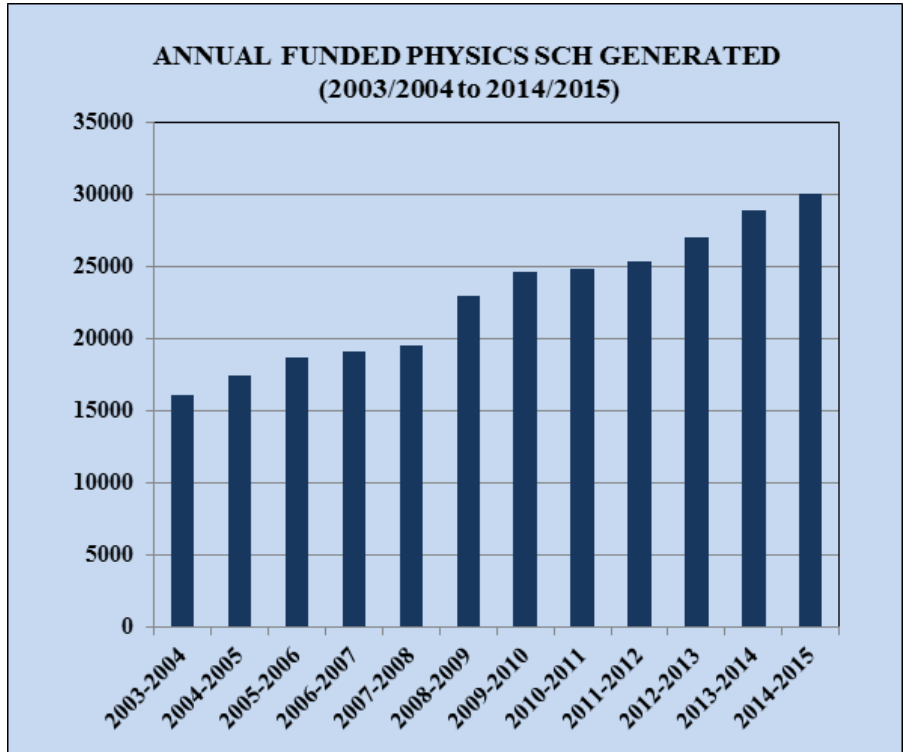
- 1 student received the 2014 Goldwater Scholarship (Michael Calzadilla)
- 1 student received the 2015 Gates-Cambridge Scholarship (Michael Calzadilla)
- 1 student invited to the 64th Physiology and Medicine Nobel Laureates' Conference, Lindau, Germany (Jasmine Oliver)
- 1 student received a National Defense Science and Engineering Graduate (NDSEG) Fellowship (Brian Demaske)
- 1 student received a German Academic Exchange Award (DAAD, Deutscher Akademischer Austausch Dienst) (Stevce Stafanoski)
- 2 students received Bright House Networks Endowed Fellowships (Adrian Popescu & Shannon Hill)
- Multiple USF Outstanding Dissertation Awards (Christopher Mann, Matt Beekman, Michael Conroy, Jason Lewis, Adrian Popescu, Lyudmila Adamska & Stevce Stefanoski)

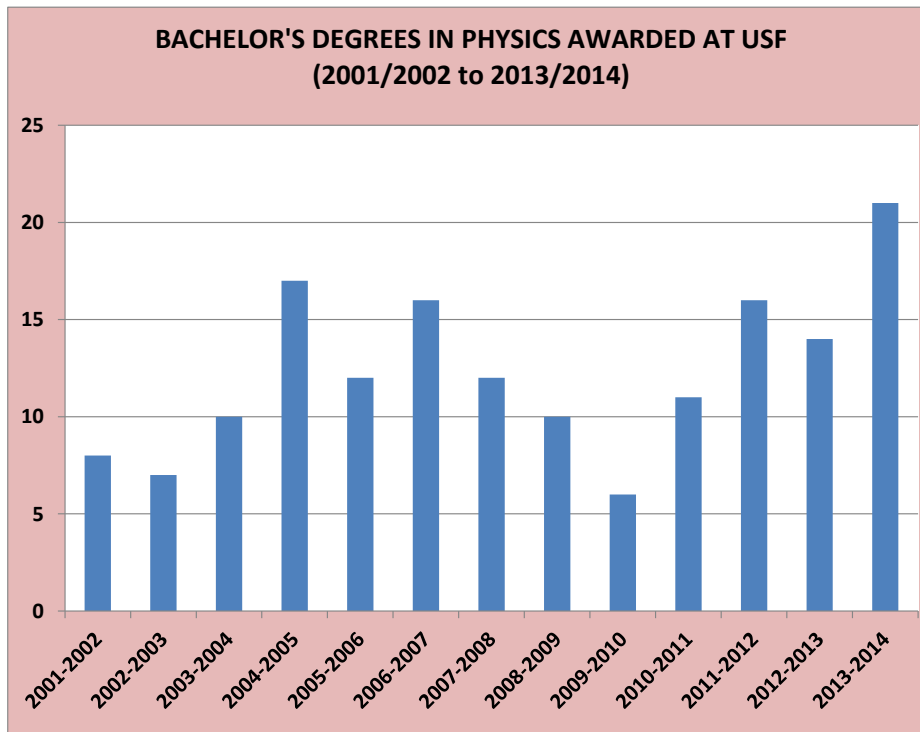
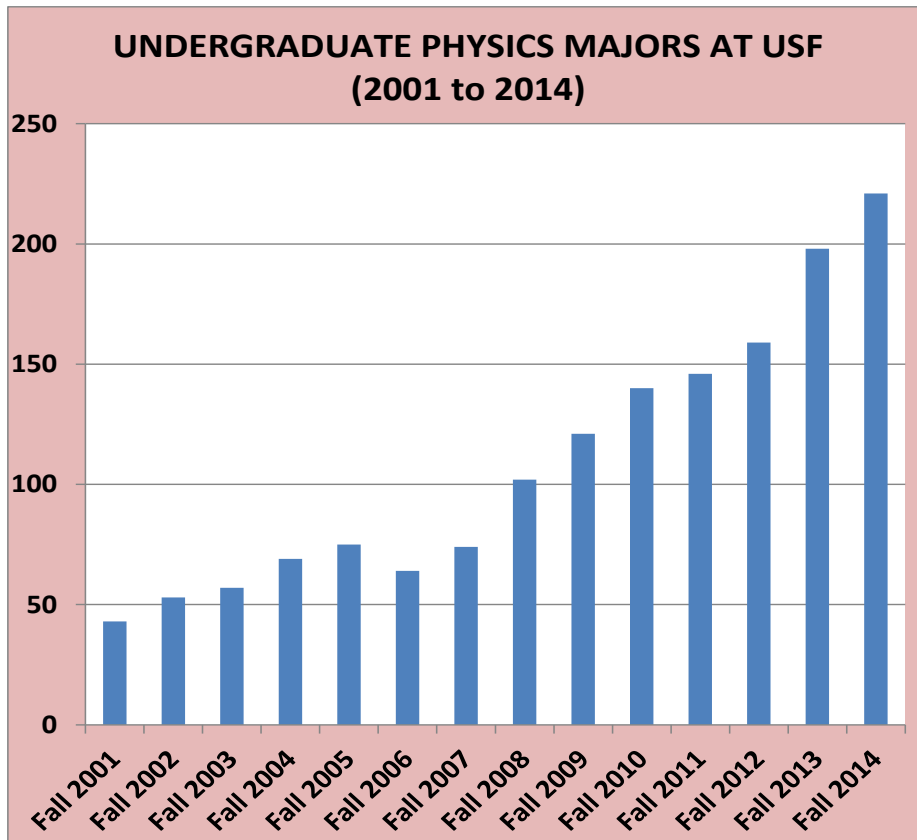
Highlights of programmatic development:

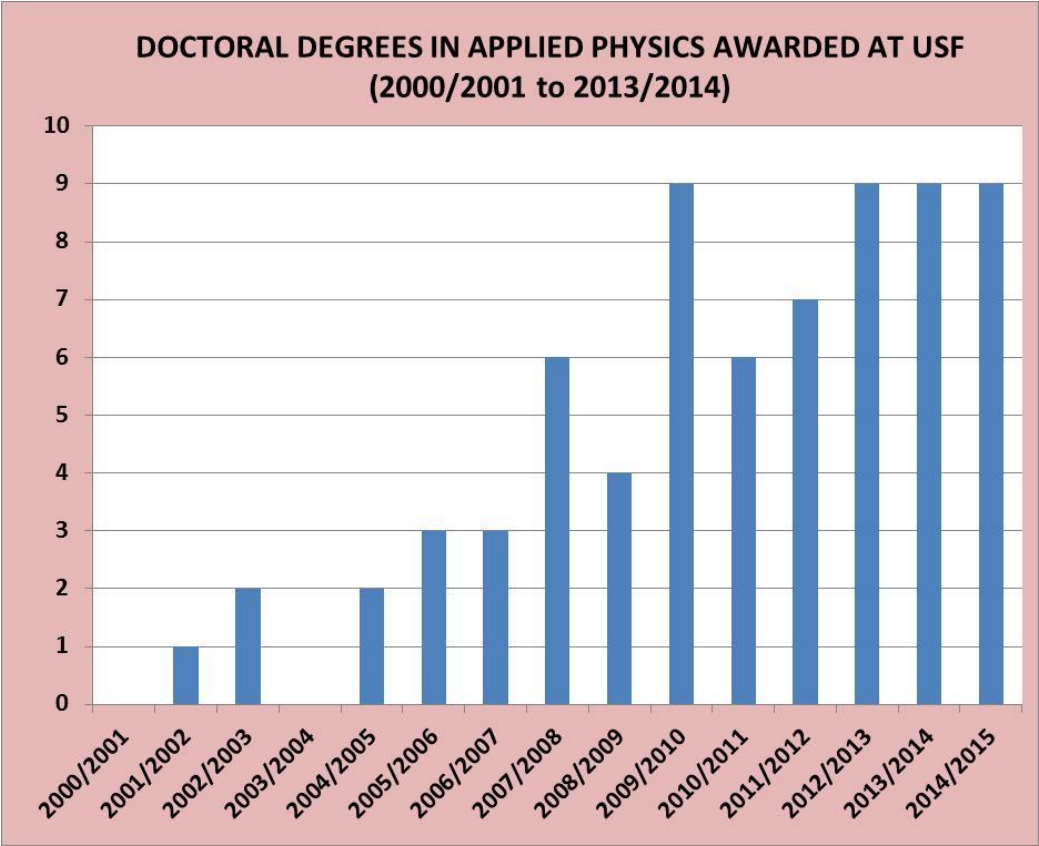
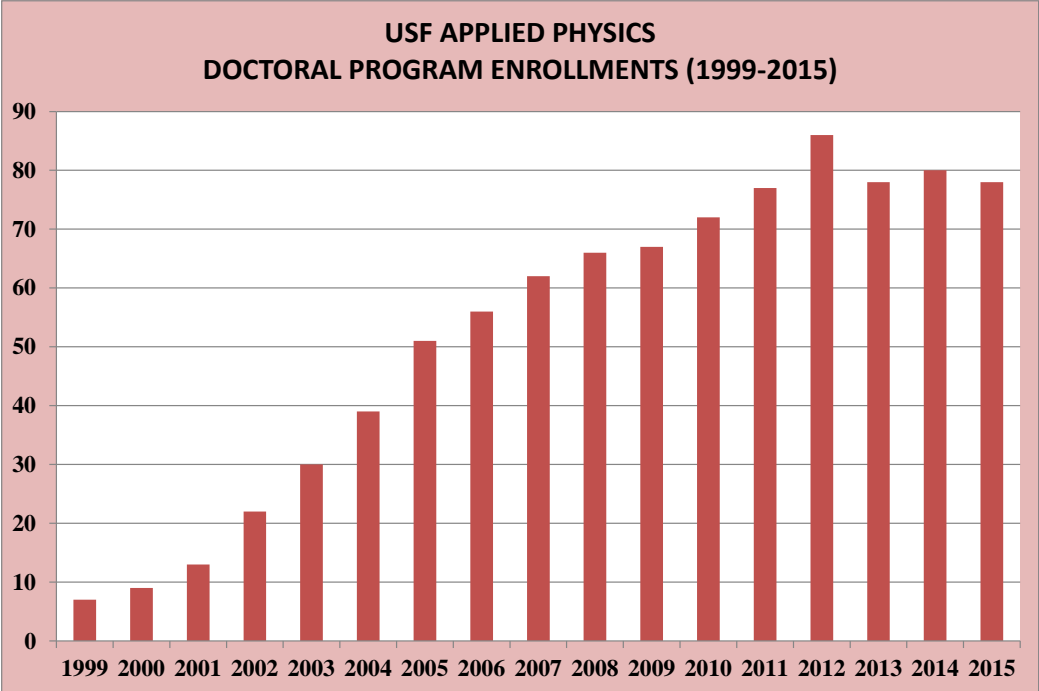
- Development of a Ph.D. program in Applied Physics, unique in the State of Florida
- Development of a CAMPEP (Commission on Accreditation of Medical Physics Education Programs) – accredited emphasis in Medical Physics
- Selection of USF Physics by the American Physical Society as one of two funded inaugural Bridge to the Doctorate Program sites in the nation
- Participation as a foundational member of the School of Natural Sciences and Mathematics (SNSM) in CAS
- New minor in biomedical physics
- Transfer of astronomy from Mathematics to the Physics Department and related program growth
- Department relocation to the new, seven-story Interdisciplinary Sciences (ISA) Building

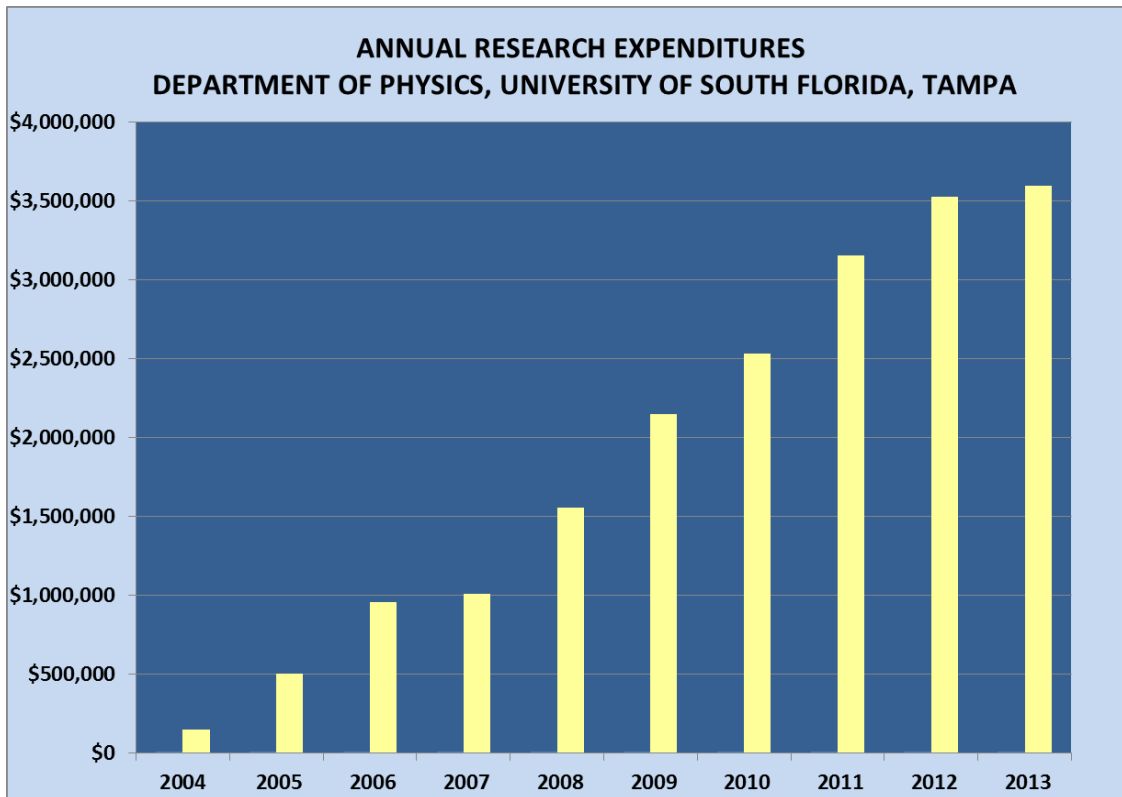
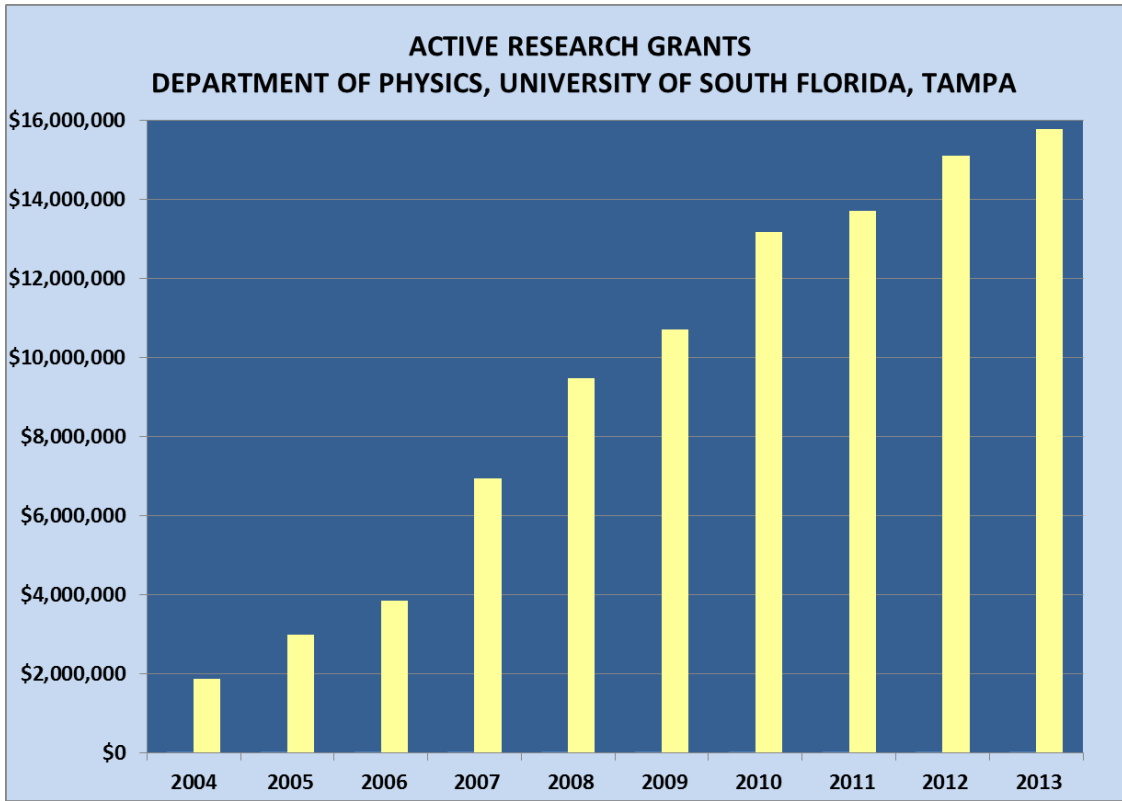
- Development of shared infrastructure facilities: (Physics Materials Diagnostic Facility (PMDF) and Facility for the Optical Characterization of Materials (FOCM))
- Receipt of \$180K from alumnus Mr. Roy Jewell to endow the Emery H. and Barbara P. Jewell Award for Faculty Excellence at the Department of Physics
- Initiation of the Eminent Scholar Program in USF Physics with the recruitment of Physics Nobel Laureate Prof. Ivar Giaever

**Historical Productivity Data for Department of Physics
during Service as Department Chair**

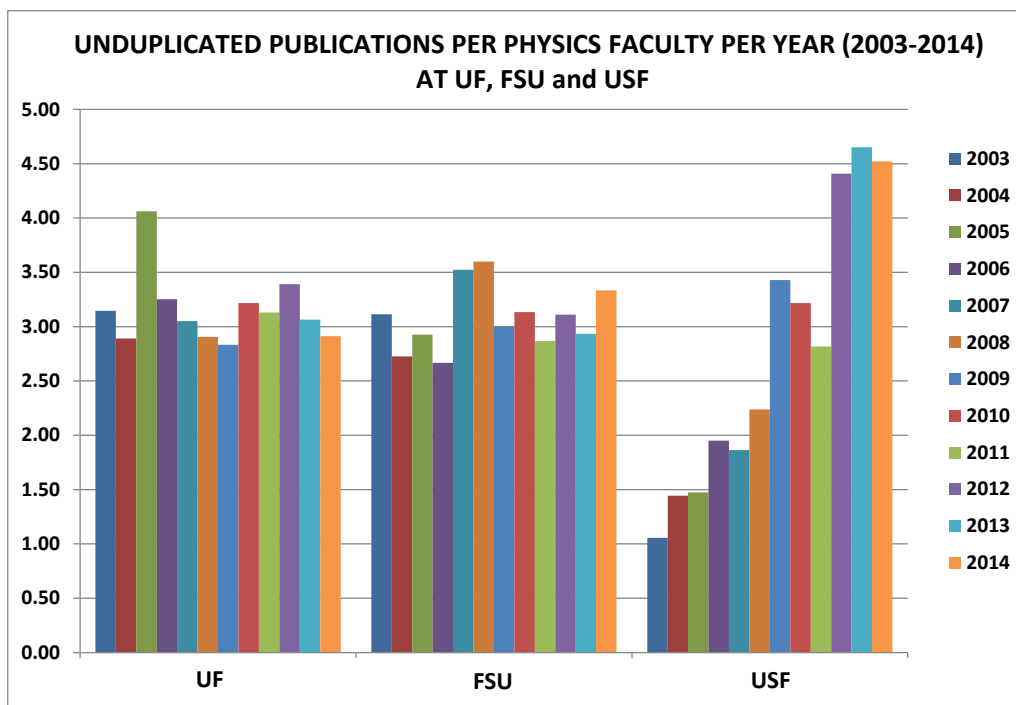
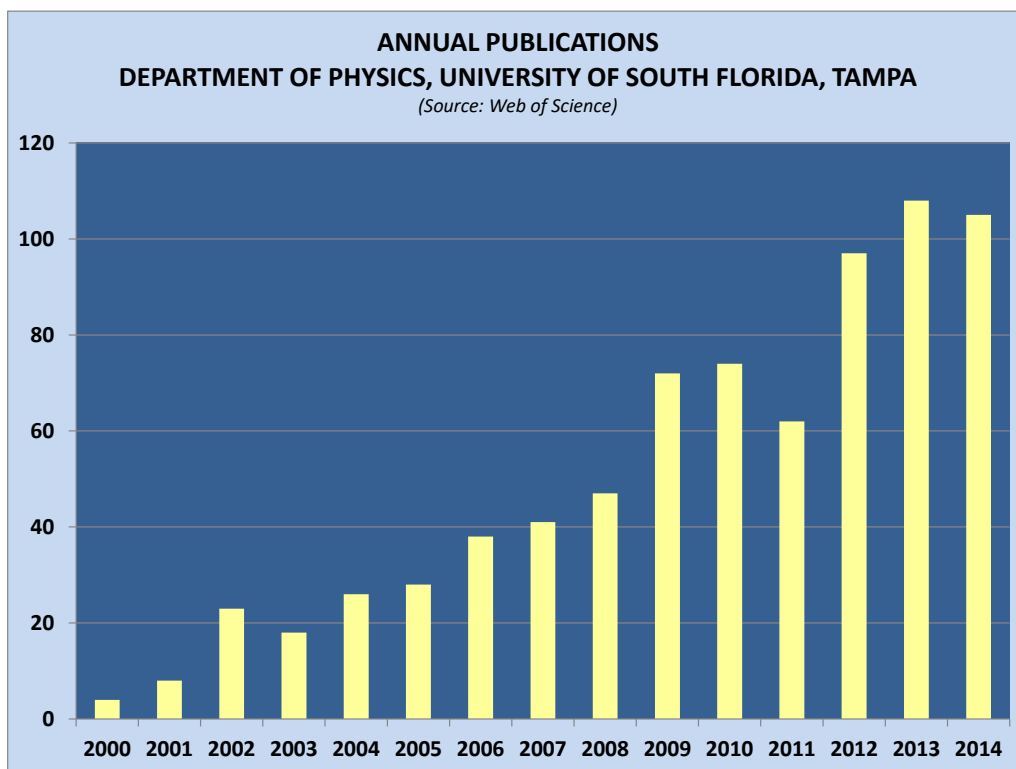






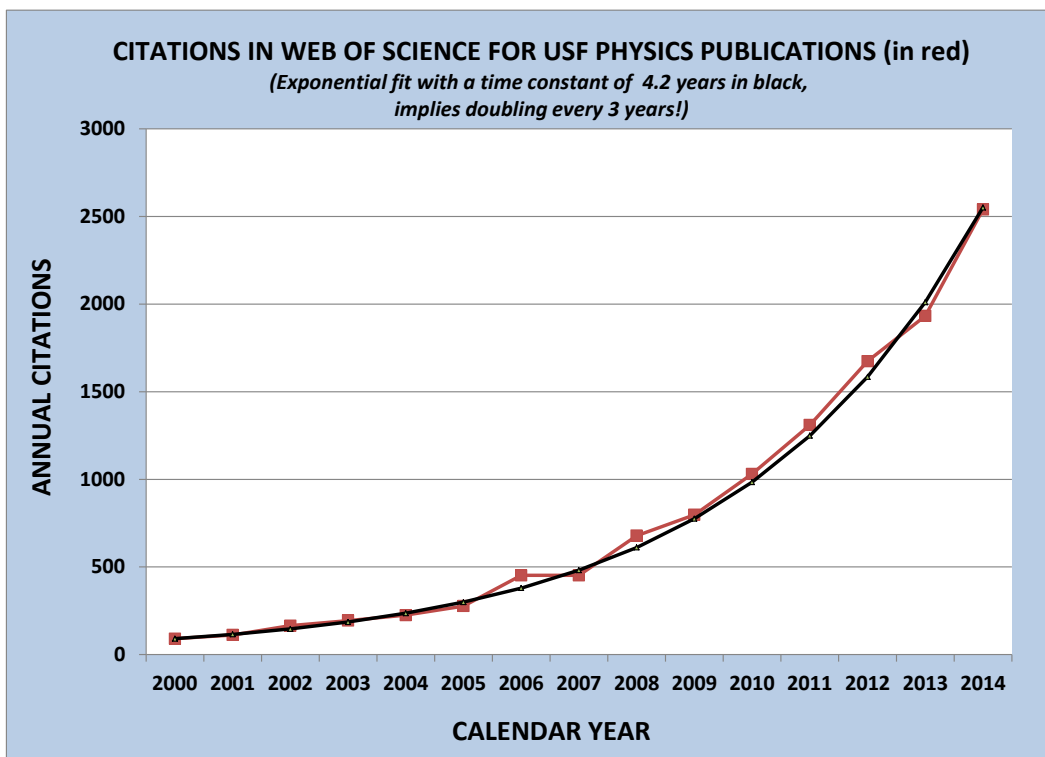
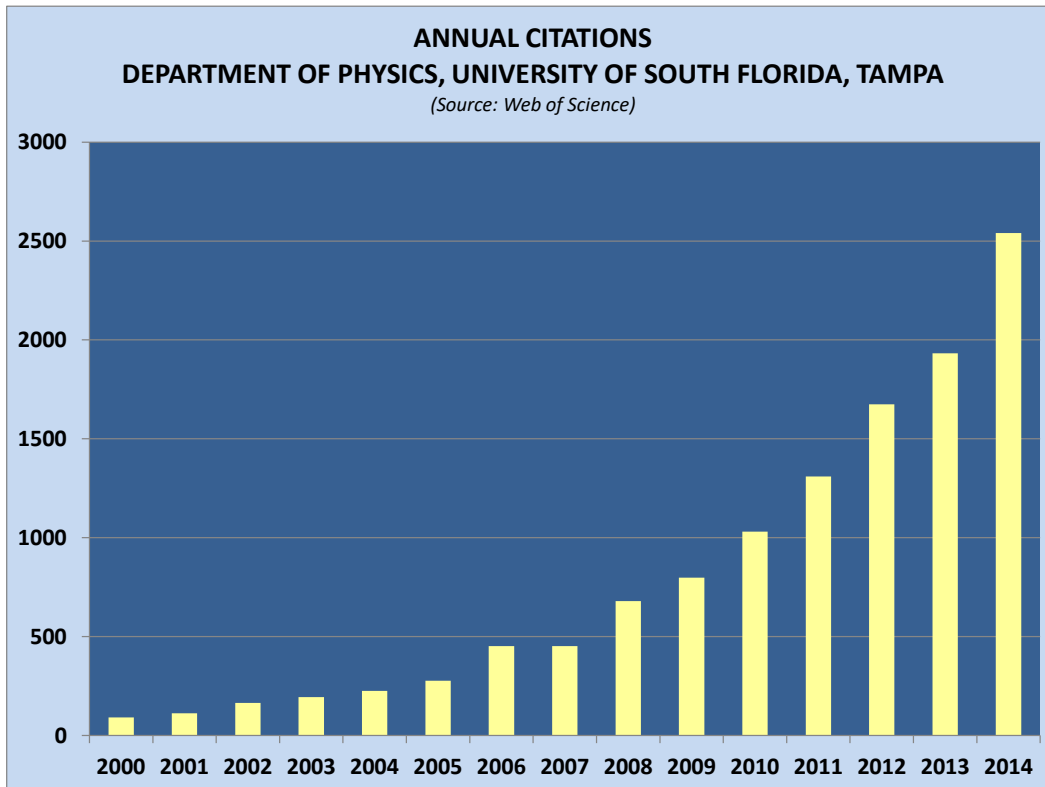


PEER-REVIEWED USF PHYSICS PUBLICATIONS



Unduplicated annual publications per tenured/tenure-track Physics faculty member at UF, FSU and USF, obtained from the ISI Web of Science database and the corresponding AIP Annual Handbooks of Physics Graduate Programs.

CITATIONS FOR PEER-REVIEWED USE PHYSICS PUBLICATIONS



RESEARCH AND SCHOLARLY ACTIVITY

BOOK CHAPTERS

- K. Stojak, H. Srikanth, P. Mukherjee, M.H. Phan and N.T.K. Thanh, “Size- and Shape-Variant Magnetic Metal and Metal Oxide Nanoparticles: Synthesis and Properties”, in *Complex-Shaped Metal Nanoparticles*, Eds. Tapan K. Sau and Andrey L. Rogach, Wiley, Chapter 5, pp. 1-34, (2012).
- D. Mukherjee, S. Witanachchi and P. Mukherjee, “Chapter 3: Laser Ablation for Multiferroic Heterostructures”, pp. 45-62, in “*Laser Ablation; Fundamentals, Methods and Applications*”, Series on Lasers and Electro-Optics Research and Technology, editors Christoph Gerhard, Stephan Wieneke and Wolfgang Viol, Nova Science Publishers, Inc., New York, 2015.

REFEREED PUBLICATIONS

- D. J. Denmark, R. H. Hyde, C. Gladney, M. H. Phan, K. S. Bisht, H. Srikanth, P. Mukherjee and S. Witanachchi, “Photopolymerization-based synthesis of iron oxide nanoparticle embedded PNIPAM nanogels for biomedical applications”, *Drug Delivery*, 2017 Vol. 24 (1), 1317–1324.
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- P. Mukherjee, “Mapping Rankings and Metrics on to the University “Ecosystem”: A Case Study”, invited talk, EduData Summit, MIT, June 19, 2018.
- P. Mukherjee, *Young Universities Alliance workshop: Foundation of new networks?*, chaired workshop co-facilitated by the President and a member of the Executive Board of the Young European Research Universities Network (YERUN) (Juan Romo, President of University Carlos III Madrid and Dr. Anthony Forster, Vice Chancellor of the University of Essex, respectively) and Ms. Renee Hindmarsh, the Executive Director of the Australian Technology Network (ATN) of universities, Grand Hyatt, Tampa, June 5, 2018
- F. Albadrasawi, A. Sabah, D. J. Mateo Feliciano, P. Mukherjee and S. Witanachchi, “Reaction Time Study of Zinc Stannate Growth on Conducting Substrates”, American Physical Society March meeting, Los Angeles, CA March 2018.
- D. J. Mateo Feliciano, A. Sabah, F. Albadrasawi, P. Mukherjee and S. Witanachchi, “ZnSnO₃ nanowires as a lead-free alternative for piezotronics devices constructed using a template-based growth”, Materials Research Society Meeting, Phoenix, AZ, April 2018.
- C. Gladney, D. Denmark, P. Mukherjee and S. Witanachchi, “In-Situ, Time Dependent Photopolymerization of PNIPAM Microgels for Targeted Drug Delivery Applications”, Materials Research Society Meeting, Phoenix, AZ, April 2017.
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PATENTS

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- P. Mukherjee and S. Witanachchi, "Two-Dimensional Optical Filter and Associated Methods", U.S. Patent No. 6,697,557, February 24, 2004.
- G.S. Nolas, S. Witanachchi and P. Mukherjee, "Clathrate compounds for electronic applications", US Patent 7,534,414, May 19, 2009.
- P. Mukherjee and S. Witanachchi, "Method of Affecting In-situ Diamond Growth", patent pending.
- S. Witanachchi, L. Woods, G.S. Nolas and P. Mukherjee, "A Novel Nano-structured Material System with High Thermoelectric Figure-of-merit", provisional patent submitted.
- P. Mukherjee and S. Sasidharan, "The Performance of Organizational Ecosystem Mapping (POEM): Mapping Performance Indicators on to the Organizational Ecosystem", provisional patent submitted May 30, 2018.

RESEARCH COLLABORATORS

Dr. Jacob L. Jones, University of Florida, Gainesville, Florida
Dr. Manh-Huong Phan, University of South Florida, Tampa, Florida
Dr. Hafsa Khirshid, University of South Florida, Tampa, Florida
Dr. Devajyoti Mukherjee, University of South Florida, Tampa, Florida
Dr. Anuja Datta, University of South Florida, Tampa, Florida
Dr. Tara Dhakal, University of South Florida, Tampa, Florida
Dr. Susmita Pal, University of South Florida, Tampa, Florida
Dr. George S. Nolas, University of South Florida, Tampa, Florida
Dr. Hari Srikanth, University of South Florida, Tampa, Florida
Dr. Sarath Witanachchi, University of South Florida, Tampa, Florida
Dr. Xiaomei Jiang, University of South Florida, Tampa, Florida
Dr. Matthias Batzill, University of South Florida, Tampa, Florida
Dr. Timothy R. Gosnell, Los Alamos National Laboratory, Los Alamos, New Mexico
Dr. Jeffrey Saffer, Jackson Laboratories, Bar Harbor, Maine
Dr. Irving J. Bigio, Los Alamos National Laboratory, Los Alamos, New Mexico
Mr. Michael P. Hasselbeck, State University of New York at Buffalo, Buffalo, New York
Dr. Mansoor Sheik-bahae, State University of New York at Buffalo, Buffalo, New York
Dr. Hoi Sing Kwok, State University of New York at Buffalo, Buffalo, New York
Dr. John T. Ho, State University of New York at Buffalo, Buffalo, New York

Service on Thesis, Dissertation,

Project and Comprehensive Examination Committees

Newton Sims	M.S. Physics (Dec. 1989)	Member
Vonguilay Phomsakha	M. S. Physics (May 1990)	Member
Palanikumaran Sakthivel	M.S. Physics (April 1991)	Major Professor
Daniel Oman	M. S. Physics (April 1991)	Major Professor
Neil Weston	M. S. Physics (April 1992)	Major Professor
Phillip Roland	M. S. Physics (Aug. 1993)	Major Professor
Wayland Stewart	Ph. D. Electrical Engg. (July 1993)	Member
William Wilcox	Ph. D. Engg. Science (Dec. 1995)	Member
Carol de Vera*	M. S. Physics (Dec. 1995)	Member
Palanikumaran Sakthivel	Ph. D. Engg. Science (Dec. 1995)	Major Professor
Yi-Cheng Tong#	M. S. Physics (May 1996)	Member
Pushkaraj Panse	M. S. Physics (Aug. 1996)	Member
Khurshid Ahmed	Ph. D. Engg. Science (Dec. 1996)	Member
Christian Keyser*	M. S. Physics (Aug. 1997)	Member
Edward Zubeck*	M.S. Physics (Dec. 1997)	Major Professor
Shudong Chen	M. S. Physics (Dec. 1999)	Major Professor
Shudong Chen	M. S. Engg. Science (Dec. 1999)	Major Professor
John Cuff	M.S. Physics (Aug. 2000)	Major Professor
John Cuff	M. S. Engg. Science (Aug. 2000)	Major Professor
Martin Miyawa	M. S. Physics (Aug. 2000)	Member
Martin Miyawa	M. S. Engg. Science (Aug. 2000)	Member
Prasanna Mahawela	M. S. Engg. Science (Aug. 2000)	Member
David Totzke	M.S. Engg. Science (Aug. 2000)	Member
David Totzke	M.S. Physics (Aug. 2000)	Member
Harshini Fernando*	M.S. Physics (Dec. 2001)	Member
Alicia Garcia-Lopez	M.S. Chem. Engg. (July 2001)	Member
Dan Factor#	M.S. Physics (April 2002)	Major Professor
Susan McAveety#	M.S. Physics (April 2002)	Major Professor

Vida Castillo	Ph.D. Applied Physics (July 2002)	Member
Ranko Hajndl	M. S. Physics (Dec. 2002)	Member
Jeff Sanders	M. S. Physics (April 2003)	Member
Randolph Ertenberg	M. S. Physics (October 2003)	Member
Betul Unlusu	Ph. D. Chem. Engg. (April 2004)	Member
James Winslow	M. S. Physics (May 2004)	Major Professor
James Winslow	M. S. Engg. Science (May 2004)	Major Professor
Lane Manoosingh	Ph. D. Elect. Engg. (June 2004)	Member
Uma Choppali*	M. S. Physics (July 2004)	co-Major Prof.
Yong-Rae Kim	Ph. D. Applied Physics (Dec. 2004)	Member
Houssam Abou-Mourad	Ph. D. Applied Physics (April 2005)	co-Major Prof.
Gayan Dedigamuwa	M. S. Physics (May 2005)	Member
Leo Krzewina	Ph. D. Applied Physics (Mar. 2006)	Member
Jermaine Kennedy	Ph. D. Applied Physics (April 2006)	Member
Drew Rebar	M. S. Physics (May 2006)	Member
Ranko Heindl	Ph. D. Applied Physics (Nov. 2006)	Member
Robert Hyde	M. S. Physics (Nov. 2006)	Major Professor
Robert Hyde	M. S. Engg. Science (Nov. 2006)	Major Professor
Raghu Mudhivarathi	Ph. D. Mech. Engg. (Nov. 2007)	Member
Natalia Kovalchuk	Ph. D. Applied Physics (April 2008)	Member
Gayan Dedigamuwa	Ph. D. Applied Physics (Nov. 2009)	Member
Marek Merlak	M. S. Physics (May 2010)	Member
Devajyoti Mukherjee	Ph. D. Applied Physics (Sep. 2010)	co-Major Prof.
Robert Hyde	Ph. D. Applied Physics (Apr. 2011)	co-Major Prof.
Ted Wangenstein	Ph. D. Applied Physics (June 2012)	co-Major Prof.
Dino Ferizovic	Ph. D. Applied Physics (Nov. 2012)	co-Major Prof.
Michael Blosser	M.S. Physics (Jan. 2013)	Member
Sayan Chandra	Ph. D. Applied Physics (Oct. 2013)	Member
Kevin McCash	Ph.D. Applied Physics (May 2014)	Member
Gabriel Marcus	M.S. Physics (Dec. 2014)	co-Major Prof.
Jagannath Devakota	Ph. D. Applied Physics (April 2015)	Member

Himanshu Verma	Ph.D. Applied Physics (July 2015)	Member
Corissa Kons	M.S. Physics (Aug. 2015)	co-Major Prof.
Kaya Wei	Ph.D. Applied Physics (Nov. 2015)	Member
Elena Glazkova	Ph.D. Applied Physics (Oct. 2016)	Member
Ryan Herchig	Ph. D. Applied Physics (March 2017)	Member
Daniel Denmark	Ph.D. Applied Physics (June 2017)	co-Major Prof.
Mahesh Hordagoda	Ph.D. Applied Physics (August 2017)	co-Major Prof.
Lakmal Hettiarachchi	Ph.D. Applied Physics (Nov. 2017)	co-Major Prof.

*Project Report. #Comprehensive Examination.

Currently directing:

- Domingo Feliciano (Ph. D., Applied Physics) (co-Chair)

Postdoctoral Scientist Direction

The following postdoctoral scientists were directed and supported on research funding:

Dr. Susmita Pal

Dr. Tara Dhakal

Dr. Antao Chen (FCASST Research Associate Professor)

Dr. Devajyoti Mukherjee CIFM* (co-directed with Dr. Sarath Witanachchi)

Dr. Hafsa Khurshid CIFM (co-directed with Dr. Hari Srikanth)

Dr. Anuja Datta FCASST** Research Assistant Professor

Dr. Manh-Huong Phan FCASST Research Assistant Professor

**CIFM: Center for Integrated Functional Materials*

***FCASST: Florida Cluster for Advanced Smart Sensing Technologies*

Undergraduate and High School Student Research Direction

A variety of undergraduate students have completed their Physics Undergraduate Research requirement in my laboratory. I have directed the Honors theses of Fayssal El-Jabbali, Alisha Khan, Jaya Kolla, Rachel Price and Nupur Godbole. I also participated in Priscilla Sato and Laura Beauchemin's Honors theses as a committee member.

Over the years, gifted high school students have participated in research experiences in my laboratory during the USF Mathematics Summer Program. In particular, one high school student has been involved in more intense research activities each summer in our laboratory from 2001-2004.

The last three high school students were Laila Booshehri (King High School International Baccalaureate Program student), Rene Chen (Wharton High School), and Andy Barthel (Wharton High School). Rene won first place in the Senior Physics category at the Hillsborough County Regional Science Fair and the United States Army Special Award in March 2003 for her project on "Phase Fluctuation Optical Heterodyne Spectroscopy" that was performed under my direction. She was chosen to represent Hillsborough County in Physics at the State level. Andy won first place in the Senior Physics category at the Hillsborough County Regional Science Fair and among others awards, the Intel Special Award in March 2004 for his project on a new optical alignment for a two-dimensional fiber-based spectral imaging system that was performed under my direction. He was chosen to represent Hillsborough County in Physics at the State level and was selected for the Nationals.

PROFESSIONAL SERVICE

- Invited reviewer for the Partner University Fund (PUF), French-American Cultural Exchange (FACE) Foundation Grant Program, 2010 and 2011.
- Invited participant in the Museum of Science and Industry (MOSI) Innovation Express Contest judging at the University of South Florida, February 1, 2010.
- Invited reviewer, USF Excellence in Innovation Awards Selection Committee for the Academy of Inventors, 2009/2010 and 2010/2011.
- Invited panel reviewer for USF Florida Energy Systems Consortium (FESC) Grants, 2009 and 2010.
- Invited scientific mentor for research physicists in Radiation Oncology at the Moffitt Cancer and Research Center, Tampa, April 2008.
- Invited reviewer for 15 United States Physics departments, National Survey of Physics Doctoral Programs, National Research Council, USA, May 2007.
- Invited reviewer for Full Professor promotion, Department of Engineering Physics, Air Force Institute of Technology (AFIT), Ohio, May 2007.
- Invited reviewer, ENG Directorate of NSF (DMII), July 19, 2006.
- Invited reviewer and panelist for the Materials Processing and Manufacturing Program (MPM) proposals in the Division of Manufacturing and Industrial Innovation (DMIII) of the Engineering Directorate at the National Science Foundation, January 10, 2006.
- Invited continuing member in the search for physicists for Radiation Oncology at the Moffitt Cancer Research Center, and subsequently member of the Medical Physics Program Leaders Committee, 2005-2013.
- Invited member in the search for a Physics Chief for the Radiation Oncology Division of the Moffitt Cancer Center, 2005-2006.
- Invited panel reviewer for the ENG Directorate of NSF (DMII), January 13, 2004.

- Invited by the Director of the Engineering Directorate at NSF to participate in a national panel on the feasibility of implementing a Nanoscale Experimentation and Testing Network (NEXT) on January 10, 2001. This panel was comprised of about a dozen experts from academia and industry and five NSF Program Directors, including the Director of the Engineering Directorate and the Director of DMII at NSF.
- Hosted a group of approximately 40 scientists comprising NSF grantees from across the nation and NSF Program Directors for an on-site tour of our research laboratories at USF on January 9, 2001.
- Invited reviewer on the CAREER Awards Panel, DMII, NSF, November 1, 2001.
- Invited reviewer CTS Division, NSF, March 14, 2000.
- Invited reviewer, ENG Directorate of NSF (DMII), June 7, 2000.
- Invited participant in an international "Workshop on Pulsed Laser Deposition" hosted by NIST and NRL on May 12-13, 1998, Arlington, Virginia.
- Invited panel reviewer for DMII in the Engineering Directorate of the National Science Foundation, December 10, 1997.
- Invited panel reviewer for the Division of Design, Manufacturing and Industrial Innovation (DMII) in the Engineering Directorate of the National Science Foundation, June 4-5, 1996.
- Invited proposal reviewer, National Science Foundation Small Business Innovation Research, October 1994.
- Reviewer for articles in scientific journals including Applied Physics Letters, Applied Optics, Optics Letters, Journal of Applied Physics, Journal of Crystal Growth and Materials Chemistry and Physics.

- Invited and volunteered as a science judge for the 39th Annual State Science and Engineering Fair of Florida on April 14, 1994, as well as other subsequent Science Fairs at the elementary school level.

STATEMENT OF SERVICE AT USF

While serving on Committees at USF, I have enjoyed the opportunity to interact with colleagues, staff and students within the Physics Department, the College of Arts and Sciences, and the University. While learning a lot from these interactions, I have been involved in a variety of planning efforts at the University, College and Department level at USF through participation in many ad-hoc committees as well as membership in other standing committees at various levels. Some of these are indicated below:

University Committees / Service

- USF College of Education Transformation and Implementation Committee, invited to serve by Provost Ralph Wilcox, 2017.
- Search Committee for Dean of the College of Education, USF, invited by Provost Ralph Wilcox, 2017.
- Lead, “Transforming Graduate Admissions at USF – an Archivum Platform”, assigned by Provost Ralph Wilcox, 2017-2018.
- USF Planning Team for “A New and Bright Future for the USF College of Education”, invited to serve by Provost Ralph Wilcox, 2016-2017.
- USF Faculty Senate Online Teaching Assessment Committee, invited by the USF Faculty Senate, 2015.
- USF Research Advisory Committee, invited to serve by Dr. Paul Sanberg, Senior Vice President for Research, Innovation and Economic Development, USF, 2015-Present.
- USF Programming Development Committee, USF Budget Re-organization Initiative, invited by President Judy Genshaft, 2013-2014.
- Search Committee for Dean of the College of Engineering, USF, invited by Provost Ralph Wilcox, 2013-2014.
- USF Compliance Committee, invited by the Office of Research and Innovation, USF, 2012-2013.
- USF World Incentivizing, Recognizing and Rewarding International Engagement (IRRIE) Workgroup, invited by Vice President Karen Holbrook, 2012-2013.
- USF 2013-2018 Strategic Planning Workgroup, invited by President Judy Genshaft, 2011-2012.
- Steering Committee for USF Visualization Center, invited by Vice Provost Graham

Tobin, 2012-2014.

- Chair, Ad-hoc Faculty Ethics Panel, invited by Associate Provost Dr. Dwayne Smith, 2010.
- USF System Impactful Research, Economic Leadership and Community Engagement (IRELCE) Task Force, invited by President Judy Genshaft, 2010.
- Ad-hoc Committee to Review USF Tenure and Promotion Guidelines, selected by Provost Ralph Wilcox, 2010.
- Faculty Liason, Academic Campus Environment (ACE) Workgroup of the USF Board of Trustees, invited by Provost Ralph Wilcox, 2009-2011.
- Search Advisory Committee for USF Provost and Senior Vice President for Academic Affairs, invited by President Judy Genshaft, 2009.
- USF Faculty Senate By-Laws Subcommittee, invited by the USF Faculty Senate Executive Committee, 2008-2009.
- Search Advisory Committee for Associate Vice President for Research and Innovation, invited by Dr. Karen Holbrook, Vice President for Research and Innovation to Chair this national search, 2008-2009.
- USF Faculty Roles, Responsibilities and Rewards (FR³) Task Force, invited by Provost Ralph Wilcox, 2008-2009.
- USF Interdisciplinary Research Building (IDRB) Materials Research Facilities Build-out Advisory Committee, appointed by Dr. Karen Holbrook, Vice President for Research, and Dr. Ralph Wilcox, Provost, USF, 2008-2011.
- Provost's Advisory Group on Principles and Procedures for Changes in Academic Structure, invited by Provost Ralph Wilcox to this four-member group, 2008.
- USF Budget Priorities Advisory Taskforce, invited by Provost Renu Khator, 2007-2008.
- USF Budget Priorities Advisory Taskforce Subcommittee on the College of Marine Sciences, invited to chair this subcommittee by Interim Provost Ralph Wilcox, 2008.
- USF Travel Faculty Focus Group, 2007.
- USF Focus Group Concerning Campus Safety, invited by the USF Provost's Office, 2007.
- USF Nanotechnology and Nanomaterials Research Center (NNRC) Steering Committee, invited by College of Engineering Dean John Wiencek, 2007.
- Interdisciplinary Science Teaching and Research (ISA) Building Committee, appointed by the Provost, 2006-2011.
- ISA Architect Selection Committee, 2007.
- ISA Construction Manager (CM) Selection Committee, 2007.

- USF Functional Multiscale Materials by Design (FMMD) Initiative, invited by USF Graduate School Dean Delcie Durham to co-Chair the conception and administration of this \$2M USF research program, 2006-2008.
- USF Faculty Senate Executive Committee, elected by members of the USF Faculty Senate, 2006-2007.
- USF Faculty Senate, elected to a three-year term as a Senator, 2006-2009.
- Provost's Budget Faculty Advisory Committee, appointed by the Provost on the recommendation of the USF Faculty Senate, 2004-2005.
- USF Council of Chairs, ex-officio, convened by the Provost, USF, 2003- 2015.
- USF Nanotechnology Facilities Planning Steering Committee, appointed by the Provost, 2001-2003.
- National Science Foundation Engineering Research Center Proposal Steering Committee, invited by the Dean, College of Engineering, 2002-2003.
- University Graduate Program Directors' Committee, ex-officio as Director of Graduate Studies, Physics, 1997-2002.
- USF Diversity Task Force, invited by the Provost, March 2000 – 2001.
- University Advisory Workgroup on Enhancing the Recruitment and Retention of Underrepresented Faculty and Staff, invited by the Dean of CAS to represent CAS at the request of the Associate Vice President for Diversity Initiatives, 2000-2001.
- Faculty Search Committee, Center for Microelectronics Research (CMR), College of Engineering, invited by the Director of CMR, 2000-2001.
- Lucent / USF Fellowship Evaluation Committee, invited by the Director of the Center for Microelectronics Research (CMR), May 2000.
- Participant in the OPPAGA (Office of Program Policy Analysis and Government Accountability) site visit at USF, invited by the Provost, February 1999.
- Taskforce on Liberal Arts Education at USF, Chair, Science Subcommittee, invited by the Provost, September 1998 - February 1999.
- Participant, Lucent/I-4 meetings, invited by the Director of CMR, College of Engineering, Fall 1998.
- Ad hoc Faculty Senate Committee on Tenure and Promotion Guidelines, invited by the President of the Faculty Senate, December 1994 - February 1995.

College of Arts and Sciences (CAS) Committees / Service

- CAS Distinguished University Professor Review Committee, invited to serve on three-member committee by CAS Associate Dean Elizabeth Bell, 2016.

- CMMB Full Professor Promotion Committee, invited by CMMB Chair Dr. James Garey, 2015.
- CAS T&P Procedures Revision Committee, invited to serve by CAS Associate Dean Elizabeth Bell, 2015.
- New CAS Chairs' Orientation, co-Chair with Prof. Hunt Hawkins (English Chair), invited by Dean Eric Eisenberg, CAS, 2013.
- CAS SNSM Computer Modeling Faculty Search Committee, search for six faculty positions, appointed by CAS Dean's Office, 2012-2013.
- CAS SNSM STEM Education Faculty Search Committee, search for four faculty positions, appointed by CAS Dean's Office, 2012-2013.
- CAS Distinguished University Professor Review Committee, invited to serve on three-member committee by CAS Associate Dean John Cochran, 2011.
- CAS Staff Performance Bonus Plan (PBP) Review Committee, invited by CAS Dean's Office, 2010.
- CAS Council of Chairs Steering Committee, appointed by CAS Dean Dr. Eric Eisenberg, 2010-2011.
- CAS Council of School of Natural Sciences and Mathematics (SNSM) Chairs, ex-officio, 2008-2015.
- CAS Distinguished University Professor Nomination Committee, invited to serve on three-member committee by CAS Associate Dean John Cochran, 2008.
- CAS Council of Chairs' Steering Committee, invited by Dean Eric Eisenberg to represent the School of Natural Sciences and Mathematics regarding School and CAS governance, 2008.
- CAS Biology Department Reorganization Steering Committee, appointed by CAS Dean Eric Eisenberg, 2006-2007.
- CAS Area Representative for the USF Faculty and Staff Campaign, 2006.
- College of Arts and Sciences Staff Performance Bonus Program Selection Committee, appointed by the College Dean John Skvoretz, 2005.
- College of Arts and Sciences Chairs' Steering Committee, elected by the CAS Council of Chairs, 2004-2007.

- CAS Council of Chairs, ex-officio, convened by the Dean, College of Arts and Sciences, 2003-2015.
- College of Arts and Sciences Tenure and Promotion Committee, 2001-2003.
- College of Arts and Sciences Research Advisory Council, 2001-2002.
- College of Arts and Sciences in 2010 (Chair, Quality Subcommittee), November 1998 – 2000.
- Philosophy Faculty Search Committee, invited by the Chair, Department of Philosophy, CAS, 2000-2001.
- Geology Faculty Search Committee, invited by the Chair, Department of Geology, CAS, 2000.
- CAS Salary Equity Appeals Committee, invited by the CAS Dean's Office, 1998-1999.
- College of Arts and Sciences Advisory Council, 1996 - 1998.
- Geology Faculty Search Committee, invited by the Chair, Department of Geology, 1995.
- Faculty Development Committee, College of Arts and Sciences, USF, 1993-1995.
- CAS Teaching Incentive Program (TIP) Review Committee, 1994 - 1995.
- CAS Statistical Research Associate Search Committee, 1994
- Academic Computing Committee, College of Arts and Sciences, 1992- 1994.
- CAS Environmental Science Planning Committee, 1993 – 1994.
- CAS Liberal Studies Advisor, since 1993.

Physics Department Committees / Service

- Physics Faculty Advisory Committee, elected by the Physics Faculty, 2016-2017.
- Physics Faculty Search Committee at the Assistant / Associate Professor level in Soft Condensed Matter / Biophysics, 2016-2017.
- Physics Faculty Advisory Committee, elected by the Physics Faculty, 1999-2003.
- Physics Faculty Advisory Committee, elected by the Physics Faculty, 1994-1997, Chair (1997); drafted and worked on the adoption of the Physics Faculty Governance Document, 1996.
- Director of Graduate Studies, Department of Physics, 1997-2002.

- Physics Faculty Search Committees in Materials Physics and Biomedical Physics, Chair, 2002-2003.
- Physics Faculty Search Committees in Materials Physics and Biomedical Physics, Chair, 2001-2002.
- Physics Faculty Search Committees in Materials Physics and Biomedical Physics, Chair, 2000-2001.
- Physics Faculty Search Committee in Materials Physics, Chair, 1999-2000.
- Physics Graduate Committee, Fall 1996 – 2002, Chair, 1997-2002.
- Physics Ph. D. Pre-proposal Committee, September 1998- February 1999.
- Physics Faculty Search Committee, Chair, 1997-1998.
- Development of a Dual M.S. Degree Program, Fall 1996.
- Committee on Graduate Admissions, Department of Physics, 1995 - 1996.
- Educational Policy Committee, Department of Physics, 1993-1996.
- Physics TIP Evaluation Committee, 1995.

COURSES TAUGHT

General Physics I & II (both algebra- and calculus-based)	(2000 level)
Modern Physics (relativity and quantum mechanics)	(3000 level)
Applications of Physics to Biology and Medicine I & II	(4000 level)
Solid State Physics I & II	(5000/6000 level)
Lasers and Applications	(6000 level)

CURRICULUM AND PROGRAM DEVELOPMENT

- Received \$180,000 in funding from alumnus Mr. Roy Jewell to endow the Emory H. and Barbara P. Jewell Award for Faculty Excellence in perpetuity at the Department of Physics at USF, 2012.
- Led the planning and the coordination of the move of the Department of Physics teaching and research facilities from the PHY building to the new seven-story Interdisciplinary Sciences (ISA) building in Fall 2011.
- Obtained seed funding of \$500K from the Florida State University System Board of Governors and led the establishment of the Florida Cluster for Advanced Smart Sensing Technologies (FCASST) in the Department of Physics at USF. FCASST is a collaborative research cluster with the Materials Science and Engineering Department at the University of Florida at Gainesville.
- Coordinated the conception of the School of Natural Sciences and Mathematics (SNSM) in the College of Arts and Sciences at USF in 2008. Participated in the subsequent development of governance and research clusters in SNSM, 2008-2015.
- Developed and implemented a plan for the successful transfer of Astronomy from the Mathematics Department to the Physics Department at USF in 2008, and led subsequent program growth.
- Obtained Federal funding and led the establishment of the Center for Integrated Functional Materials (CIFM) in the Department of Physics at USF, 2007.
- Participated in the development of the blueprint for the \$90M Interdisciplinary Sciences Building at USF in 2006.
- Developed and implemented an Eminent Scholar Program in the Physics Department at USF in 2006/2007. Recruited 1973 Physics Nobel Laureate Prof. Ivar Giaever as our first Eminent Scholar.
- Developed and initiated a new graduate course titled “Advances in Pure and Applied Physics” in Spring 2007. This course was designed to bring the excitement of discovery and innovation in physics from pioneers who have helped shape the field.

The course was designed as the educational component of the Eminent Scholar Program in the Physics Department at USF.

- Initiated, as Physics Chair, a new undergraduate course into the Physics curriculum for majors in “Mathematical Methods” in Fall 2006.
- Conceived and established the Facility for the Optical Characterization of Materials (FOCM) in the Department of Physics at USF, 2006.
- Developed and implemented the formation of a three-member external Physics Executive Advisory Board chaired by Physics Nobel Laureate Ivar Giaever in 2004.
- Obtained funding for and established the Physics Materials Diagnostic Facility (PMDF) in the Physics Department at USF, 2003.
- Developed and taught a new two-semester, eight credit hour sequence in “Applications of Physics to Biology and Medicine” for non-physics majors, Fall 2002 to Spring 2003.
- Developed a new minor in Biomedical Physics, including two new courses PHZ 4731 and PHZ 4732 (Applications of Physics to Biology and Medicine I and II, respectively), 2003.
- Implemented the recruitment of graduate students and programmatic development for our new doctoral program in Applied Physics as Director of Graduate Studies from 1997-2002.
- Proposed a Duckwall Foundation Practicum Grant resulting in an endowment of \$200,000 from the Foundation, which, along with the \$100,000 match from the State will provide industrial practicum funding for our graduate students in perpetuity, March 2000.
- Developed a blueprint for our Ph.D. proposal in Applied Physics, September 1998-February 1999.
- Developed and implemented a dual M.S. degree program in Physics and Electrical Engineering, Fall 1996.