William Charles DeGraffenreid
6000 J Street, Sacramento, CA 95819
Phone: (916) 250-2787 E-mail: degraff@csus.edu

Highlights of Qualifications

- An award-winning faculty member committed to helping all students navigate to a successful career
- A detail-oriented administrator who thoughtfully uses data to inform decisions
- An advocate for supporting the scholarly activities and professional development of faculty
- Willing to take on whatever role is necessary to ensure the smooth operation of the University

Education

University of Maryland — College Park, MD — Sept. 2000
Ph.D. in Chemical Physics

California State Polytechnic University — Pomona, CA — June 1995
B.S. in Physics with a minor in Chemistry, *Magna Cum Laude*

Experience

Special Assistant to the Office of the President — California State University, Sacramento, Sacramento, CA — Sept. 2018 – Present
Office of the President

- Perform research for and provide advice to Robert S. Nelsen, President of California State University, Sacramento
- Serve on the President's Cabinet along with campus Vice Presidents and Executive Directors
- Member of Sacramento State's Critical Response Team
- Represent the President at activities on- and off-campus
- Serve as Liaison to the Faculty Senate
- Serve as President's Office representative to the Campus Policy Group, Records Retention Working Group, Executive Safety Committee, and Anchor University Task Force
- Work with various constituents on campus to develop clear and effective policies and procedures
- Assist with generation of Presidential communications

Department Chair — California State University, Sacramento, Sacramento, CA — Aug. 2011 – Sept. 2018 (on assignment 11/2017 – 7/2018)
Physics and Astronomy

- Developed strategies and programs that led to a more than doubling of physics majors. Currently Sacramento State is believed to be in the twenty-five largest bachelors-only physics programs (of nearly 500) in the country
- Supervised growth in Departmental FTES by over 50%
- Maintained high programmatic efficiency with a FTES/WTU exceeding 2.1 during my term as Chair
- Facilitated improved academic advising by developing advising binders for faculty members
- Participated in inaugural (2016) and 2nd annual (2017) Advising Summits. Asked to step in as faculty advisor panelist in 2017
- Created new Applied Physics Concentration for our BS degree
- Member of committee looking into creation of MS program in physics
- Oversaw hiring of six new tenure-track faculty lines which expanded research into exciting areas such as biophysics, low temperature physics, computational physics and astronomy, and high energy physics

- Supported development of faculty research, including numerous research grant proposals (totaling >$2 million) since 2014. Four of six junior faculty members were supported by the National Science Foundation.
- Managed a wide variety of endowments and specialized expenditure accounts (>$5M)
- Led department efforts in planetarium and observatory planning for new Science Complex
- Worked with University Advancement to create several new annual scholarship and research programs (>$12,000 annually) and implemented programs, specifications, and procedures for previously secured planned gift of over $2 million
- Worked closely with University Advancement to cultivate new donor relationships
- Worked with University Advancement to develop and publish annual departmental newsletter
- Worked with University Advancement on *Torchlight* from Summer 2017 which showcased Science Complex
- Oversaw full overhaul of departmental website in 2017
- Managed social media for department, including Facebook and Twitter
- Initiated development of operations plans for planetarium
- Developed successful plan to strategically hire a faculty member to join the ATLAS experiment at CERN. The Sac State High Energy Physics Program is the only CERN group without a graduate program. In 2018, a student in this program won the systemwide undergraduate research competition for his work in this program
- Initiated full revision of Department's RTP guideline, developed a Department Governance Document, revised our Department's Assessment Plan, and updated the Departmental Safety program
- Joined American Physical Society's Bridge Program which is committed to increased diversity of graduate programs in physics
- Oversaw cleanup and restructuring of Advanced Physics Laboratory to better support faculty research
- Served as a co-investigator and campus liaison for the NSF-funded CSU CAMPARE program, which brings research opportunities to students to underrepresented groups in astronomy
- Sought out training in health and safety including CPR, First Aid, and Suicide Intervention
- Known for attention to details and understanding of subtle issues that impact operation of Department's operations such as part-time entitlement issues, schedule development, and enrollment management
- Served as a Chairs' Representative to the Academic Affairs Budget Advisory Committee (2013 – 2017)

Associate Vice President for Research, Innovation, and Economic Development (Interim)
Division of Academic Affairs

California State University, Sacramento
Sacramento, CA

Nov. 2017 – July 2018

- The Chief Research Officer for Sacramento State
- Developed and provided oversight for research activities across campus
- Oversaw over 125 grant and contract submissions totaling over $50M
- Managed a team of a dozen professionals dedicated to supporting a broad range of scholarly activities
- Ensured institutional compliance oversight and research integrity
- Enhanced communications with Deans and Chairs to ensure that all faculty understand the role that ORIED plays in identifying and generating grants and contracts
- Instituted annual review of self-supported centers and institutes and developed five-year comprehensive review schedule
- Oversaw annual reviews of academic centers and provided feedback to management
- Worked with Auditing and Consulting Services to draft management response to a CSU audit of Campus Centers and Institutes Oversight. Played major role in closing all audit findings within six months of report; well ahead of mandated schedule
- Worked with Auditing and Consulting Services to draft management response to a CSU audit of Sponsored Programs Administration. Cleared findings within ORIED's control within one month of audit release
- Developed new policies and procedures for the creation, oversight, and review of Campus Centers and Institutes
- Developed a new budget model for operations of ORIED which clearly identifies operational costs versus costs that support, incentivize, and recognize research and scholarly activities on campus

- Developed and implemented a new IDC sharing plan that provided resources to colleges, departments, and PIs so they had more independence in developing strategic goals for research and creative activities
- Developed a transitional IDC sharing program, Sponsored Work Activity Grant (SWAG), to provide some support to faculty members who have exiting grants prior to official implementation of new IDC program
- Created the Faculty Research Incentive Grant (FRIG) program to incentivize writing of faculty research grants
- Implemented new billing rate methodology for self -supporting centers to ensure that the true operational costs of the centers are properly collected
- Oversaw updates of Financial Conflict of Interest and IRB policies
- Managed Sacramento State's hosting of the 32nd Annual California State University Student Research Competition
- Provided administrative oversight for the Public Health Survey Research Program with employs approximately 120 people and nearly $4M in annual expenditures for contract work
- Provided administrative oversight for the Student Research Center with 1 permanent staff member, 1 faculty director, numerous faculty and student fellows and a $150K annual budget
- Oversight of relocation of ORIED's move to new space within University Library
- Non-Academic Administration Representative to Academic Affairs Budget Advisory Committee (2017 – 2018)

Tenure Track Faculty Member California State University, Sacramento Aug. 2002 – Present
Physics and Astronomy Sacramento, CA

- Assistant Professor (2002 – 2006), Associate Professor (2006 – 2011), Professor (2011 – Present)
- Earned early tenure and promotion to Associate Professor
- Winner of Outstanding Teaching, Outstanding University Service, and Outstanding Community Service Awards
- Conceived, developed, and coordinated Department's Scientific Instrumentation Development Certificate
- Developed three new and modernized two upper-division general education courses within General Education Area B5 in response to Executive Order 1100
- Part of team that developed our Senior Project requirement and our Physics Teacher Concentration
- Served on committee that investigated the development of proposed graduate program in Applied Physics
- Oversaw several upper-division laboratories and worked with Department Chair to identify resources to keep these laboratories equipped with modern equipment and tools
- Oversaw full revision (as RTP Chair) of Temporary Faculty ARTP Policy in response to MOU changes
- Served as advisor (2002 – 2018) to our award-winning campus chapter of the Society of Physics Students. Chapter won national recognition as Outstanding or Distinguished Chapter thirteen times during sixteen years as advisor
- Served on most departmental committees including Budget (chair), Hiring (chair), RTP (chair), Curriculum, Assessment, Scholarship, Hu Endowment, and Iloff Endowment Committees
- Served as Alternate Senator to the Faculty Senate
- My experience with developing scientific instrumentation has led to research partnerships with faculty in other departments, Dr. Roy Dixon in Chemistry and Dr. Jeff Calton in Psychology

Chair American Institute of Physics October 2017 – Present
Education Research Group Committee College Park, MD

- Perform annual analysis, review, and feedback for programs within the Education Division of American Institute of Physics
- As founding chair of the Education Research Group, I worked with AIP leadership on makeup of committee membership, charge, and bylaws

Co-Chair California State University, Sacramento November 2016 – June 2017
Laboratory Safety Taskforce Sacramento, CA

- Asked by President Nelsen to lead campus taskforce developed to provide response to safety concerns in experiential learning activities in response to incident in teaching laboratory
- Worked with team representing several colleges, Risk Management, Administration and Business Affairs, Student Health, and Public Safety to identify areas of concern within current policies and practices
- Developed a 200+ page report with numerous recommendations on how to improve safety and safety culture. This included an interim version of chemical response plan, draft chemical hygiene plan, and recommendations for new campus committee structures
- The work of this committee put the campus in a strong place to respond to Legislature-initiated state audit of safety practices within the California State University system

Chair American Institute of Physics June 2012 – December 2016
2016 Congress Planning Committee College Park, MD

- The 2016 Sigma Pi Sigma Quadrennial Physics Congress (Nov. 2016) was the largest-ever meeting of undergraduate physics majors (>1000 from around the nation)
- Led the team tasked with site selection, meeting program development, and meeting logistics
- Worked with Public Affairs offices at SLAC and NASA Ames Research Center to offer tours of the sites to meeting participants
- Served as a co-leader for the Congress's closing workshop and as liaison for two additional workshops on diversity and career opportunities
- Worked with AIP's National Office staff on fundraising activities for general meeting sponsorship and the creation of several programs to underwrite the cost of student participation, particularly for students from Minority Serving Institutions
- Oriented the incoming planning committee to ensure continuity and success of the next Congress

President American Institute of Physics June 2012 – June 2014
Sigma Pi Sigma College Park, MD

- Served as volunteer leader of Sigma Pi Sigma, the Physics Honor Society
- Served as *ex officio* member of American Institute of Physics Education Advisory Committee
- Prepared manuscripts for Sigma Pi Sigma publications and social media
- Reviewed and ranked applications for national-level scholarships and community outreach awards
- Participated in several fundraising campaigns
- Served as Presider for the 2012 Quadrennial Physics Congress

Visiting Scholar University of California, Davis Jan. 2011 – Aug. 2011
Civil and Environmental Engineering Davis, CA

- Helped development a high sensitivity laser spectroscopy system to characterize the optical properties of aerosols
- Experience with LabVIEW brought significant performance improvements to the apparatus
- Provided an external research opportunity to Sacramento State physics major which turned into his Senior Project

Assistant Director California State University, Sacramento Aug. 2006 – Aug. 2007
Center for STEM Excellence Sacramento, CA

- The Center for STEM Excellence was a faculty-initiated initiative to improve the state of STEM Education on the Sacramento State campus by sharing resources, best practices, and advocacy
- Tasked with leading outreach and marketing program within the Center
- Conceived and founded the STEM Public Lecture Series
- Participated in several workshops, panel discussions, and meetings with Sacramento area business leaders to showcase Sacramento State's STEM programs
- Served on hiring committee for Office of Public Affairs (now University Communications) to bring a STEM-centric beat writer to their office

Grants, Awards, and Recognition

- Sigma Pi Sigma Outstanding Service Award, 2016
- Natural Sciences and Mathematics Outstanding Community Service Award, 2015
- Natural Sciences and Mathematics Outstanding Teaching Award, 2013
- NSF STEP Program ($2 Million). "The Sacramento State PASS Program: Peer-Assisted Student Success." Co-Investigator/Collaborator/Advisory Council. In addition to this funded proposal, I was part of the team that put together unfunded proposals that preceded this highly successful grant. Originally slated to include physics in the PAL program, we decided that the funds planned for physics were better used in expanding mathematics. 2011 – 2016
- Natural Sciences and Mathematics Outstanding University Service Award, 2010
- NSF Major Research Instrument Grant ($205,729). "Development and Applications of Aerosol Charge and Aerosol Photoionization Detectors for High Performance Liquid Chromatography." Co-PI with Dr. Roy Dixon, Sacramento State Department of Chemistry, 2004 – 2008
- Granted Early Tenure and Early Promotion to Associate Professor of Physics, 2006
- Sacramento State Instructionally Related Activities (IRA) Grant ($10,000). "Summer Research Experiences for Chemistry and Physics/Astronomy Students." Co-PI with several colleagues from Chemistry and Environmental Studies, 2004 – 2005
- Sacramento State Pedagogy Enhancement Award (PEA) ($11,350). "Development of an Interdisciplinary Spectroscopy Course." Co-PI with Dr. Susan Crawford, Sacramento State Department of Chemistry. Award declined due to scheduling issues as Dr. Crawford was elected department chair
- Sacramento State Instructionally Related Activities (IRA) Grant ($10,000). "Summer Research Experiences for Chemistry and Physics/Astronomy Students." Co-PI with several colleagues from Chemistry, 2003 – 2004
- NIST Summer Internship Grant ($7000). Grant to campus supported sending student Eliza Morris to NIST to perform research during the summer of 2003
- First author paper "Foreign gas broadening and shift of the $2\,^2S_{1/2} - 4\,^2S_{1/2}$ two-photon transition of atomic lithium" was selected by Editor as a Select Paper of "particular noteworthiness", 2003
- National Research Council Postdoctoral Fellowship, 2000 – 2002
- University of Maryland Graduate Fellowship, 1995 – 1997
- Inducted into Sigma Pi Sigma, the Physics Honor Society, 1993

Professional Organizations

- Sigma Pi Sigma (ΣΠΣ)
- Society of Physics Students (SPS)
- American Association of Physics Teachers (AAPT)

Selected Publications

W. DeGraffenreid, S. C. Campbell, and C. J. Sansonetti. "Reference lines in the optogalvanic spectra of uranium and thorium in the wavelength range 422 to 462 nm." J. Opt. Soc. Am. B **29**, 1580 (2012)

W. DeGraffenreid, "Teaching Ethics: The Seminar Model." The CUR Quarterly **30**, 35 (2010)

W. DeGraffenreid and C. J. Sansonetti. "Coincidence in the two-photon spectra of Li and Li_2 at 735 nm." J. Phys. B: At. Mol. Opt. Phys. **38**, 457 (2005)

W. DeGraffenreid, S. C. Campbell, and C. J. Sansonetti. "Foreign gas broadening and shift of the $2\ ^2S_{1/2} - 4\ ^2S_{1/2}$ two-photon transition of atomic lithium." J. Phys. B: At. Mol. Opt. Phys. **36**, 2099 (2003)

W. DeGraffenreid and C. J. Sansonetti. "$2\ ^2S_{1/2} - 4\ ^2S_{1/2}$ transition of atomic lithium by Doppler-free two-photon spectroscopy." Phys. Rev. A **67**, 012509 (2003)

W. DeGraffenreid and C. J. Sansonetti. "Reference lines in the optogalvanic spectra of uranium and thorium over the wavelength range 694 - 755 nm." J. Opt. Soc. Am. B **19**, 1711 (2002)

W. DeGraffenreid, J. Ramirez-Serrano, Y.-M. Liu, and J. Weiner. "A Continuous, Dense, Highly Collimated Sodium Beam." Rev. Sci. Instrum. **71**, 3668-3676 (2000)

Selected Invited Presentations

"Cavity Ring Down Spectroscopy: Kilometer Pathlengths on a Tabletop." Physics Colloquium, University of Washington – Bothell. Bothell, WA April 2017

"Put Congress in Action at Home." Closing Workshop, Sigma Pi Sigma Quadrennial Physics Congress. San Francisco, CA November 2016

"Careers Toolbox: Information and Tips from AIP Regarding Careers with a Physics Degree." Physics Colloquium Series, California State University, Sacramento. Sacramento, CA November 2015

"The LASER at 50: History, Principles, and Chemistry Applications." Chemistry and Biochemistry Seminar Series, California State University, Sacramento. Sacramento, CA October 2010

"Lasers: 50 Years of Solutions Waiting for Problems." Science in the River City. Sacramento, CA February 2010

"Scientific Professionalism / Ethics." Society of Physics Students Zone 18 Regional Meeting. San Bernardino, CA April 2009

"Professionalism Workshop." SPS Zone 16 / Four Corners APS Joint Meeting, Northern Arizona University. Flagstaff, AZ October 2007

"Teaching Professionalism to Undergraduates." Southern California AAPT / SPS Zone 18 Joint Meeting, University of Southern California. Los Angeles, CA April 2007

"Structure of lithium: what we looked for, what we found, what we discovered en route, and what we discovered looking back." Physics Colloquium Series, California State Polytechnic University. Pomona, CA April 2006

Selected Contributed Presentations

"Head direction cell activity recorded during alteration of geomagnetic field polarity." Society for Neuroscience Annual Meeting. San Diego, CA November 2010 (given by colleague Jeff Calton)

"Advanced Laboratories at Sacramento State." American Physical Society April Meeting, Saint Louis, MO April 2008

"Effects and Use of Spray Electrification in Aerosol Charge Detection for HPLC." International Symposium and Exhibit on High-Performance Liquid Phase Separations and Related Techniques. San Francisco, CA June 2006 (given by colleague Roy Dixon)

"Development of an Economical Detector for HPLC Utilizing Spray Electrification." CSU Biotechnology Symposium. San Jose, CA January 2006 (given by colleague Roy Dixon)

"Coincidence in the Two-photon Spectra of Li and Li_2." APS California Section Meeting, Sacramento, CA October 2005

"Teaching Professionalism/Ethics to Undergraduates." AAPT National Meeting, Salt Lake City, UT August 2005
"Trials and Tribulations: Laser Spectroscopy of Lithium." AAPT National Meeting, Sacramento, CA August 2004

"Laser Spectroscopy of the Lithium Atom: Oops and Redemption." Joint Meeting of the Northern California AAPT and APS - California Section. Berkeley, CA November 2003

Other Notable University Service

- NSM Laboratory Safety Manager Selection Committee 2017 (Chair, 2017)
- College of Natural Sciences and Mathematics (NSM) Academic Council, 2011 – 2017 (Vice Chair, 2017; Chair, 2012 – 2017)
- Council on Preparation of School Personnel, NSM Dean's Representative, 2012 – 2017
- Member Physics Faculty Discipline Review Group (FDRG), an inter-system committee charged with developing course descriptors and curricula necessary for SB-1440 mandated Transfer Model Degrees, 2012 - 2018
- Campus Radiation and Laser Safety Committee, 2003 – Present
- Department Chairs Representative to CourseLeaf Curriculum Workflow Team, 2016 – 2017
- Ad Hoc Campus Chemical Hygiene Committee, 2017
- Science Complex Groundbreaking Committee, 2017
- Vice Provost Hiring Committee, Provost's Representative, 2016
- Campus Physical Planning Committee, 2015 – 2016
- Interim Associate Library Dean Hiring Committee, 2014
- CSU Lead for development of Transfer Model Curriculum degree for AS-T in Physics, 2012 – 2014
- Campus Learning Spaces Working Group, 2009 – 2011
- NSM Curriculum Resources Committee, Several Times
- NSM Commencement Committee, 2003 – 2017 (Chair, 2004 – 2017)
- NSM ITC Hiring Committee, 2015
- NSM Strategic Planning Committee, 2009 – 2011
- NSM Dean's Award Committee, Several Times
- RTP Committees for Chemistry, 2012, and Mechanical Engineering, 2015 – 2017 (Chair, Fall 2015)
- Contributor and tester pilot test of online course substitution and course equivalency forms, 2016 – 2017
- Worked with Dean of Undergraduate Studies and Student Affairs to help create more effective process for "turning on" prerequisites, clarifying forms for substitution versus equivalency, and improvements in course equivalency evaluations, 2012

Community Service Highlights

- Represented Sacramento State at the 2017 Sacramento Asian Pacific Chamber of Commerce's Annual Sacramento Region Internal Study Mission

- Co-organized 2017 North American Eclipse viewing on campus
- Served as Master of Ceremonies for the 2017 North American Eclipse viewing at the California State Capitol
- Hosted the 2016 Summer Meeting of the American Association of Physics Teachers (AAPT)
- Hosted the 2015 Fall Meeting of the Northern California Nevada Section of AAPT
- American Institute of Physics' Education Research Group Committee, 2017 – Present
- Ally on lgbt+physicists.org site, 2014 – Present
- Served on the National Council of the Society of Physics Students, 2003 – 2009
- Served on the Local Organizing Committee for the 2004 AAPT Summer Meeting
- Served on the Local Organizing Committee for the 2005 American Physical Society California Section Meeting
- Volunteered for events such as Regional Science Olympiad, Expanding Your Horizons, Science in the River City, and Science Day at Great America
- Served as an external member of tenure and promotion review committee at Louisiana Tech (2009, 2015)
- Reviewed several textbooks, journal articles, and grant applications
- Participated in fundraising for the Leukemia and Lymphoma Society (LLS) through their Team In Training program by participating on three triathlon teams. Personally raised >$10,000 and served as Triathlon Team Captain (2015). Regularly asked to serve as "mission moment" speaker to inspire other participants

Professional References

Ching-Hua Wang chinghua.wang@gmail.com
President, *Samuel Merritt University* 415-300-5397 (m)
Former Provost, *California State University, Sacramento* 510-879-9200 (w)

Christopher Taylor ctaylor@csus.edu
Interim Chair and Professor of Physics and Astronomy, *California State University, Sacramento* 916-533-3078 (m)
Former Vice Chair Faculty Senate, *California State University, Sacramento* 916-278-6480 (w)

Chevelle Newsome cnewsome@csus.edu
Dean of Graduate Studies, *California State University, Sacramento* 916-716-6547 (m)
916-278-6470 (w)

Brad Conrad bconrad@aip.org
Executive Director of Society of Physics Students/ΣΠΣ, *American Institute of Physics* 301-351-1567 (m)
Associate Professor of Physics (on leave), *Appalachian State University* 301-209-3111 (w)

Toni Sauncy tsauncy@tlu.edu
Department Chair and Associate Professor of Physics, *Texas Lutheran University* 325-234-5344 (m)
Former Executive Director of Society of Physics Students/ΣΠΣ, *American Institute of Physics* 830-372-6904 (w)