



PHYSICS COLLOQUIUM:

Cal-Bridge: Overcoming Barriers to Engagement of Underrepresented Students in STEM PhD Programs

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About The Speaker:

Dr. Alexander Rudolph is Professor of Physics and Astronomy at California State Polytechnic University (Cal Poly Pomona), where he has been on the faculty since 2005. He received his bachelor's degree from Haverford College in 1982, and his PhD in physics from the University of Chicago in 1988. Before joining the faculty at Cal Poly Pomona, he worked as a faculty research associate at the University of Maryland, a National Research Council Fellow at NASA/Ames Research Center, and was on the faculty of the Harvey Mudd College Physics Department from 1994-2001. He also spent a year teaching high school science and math.

Dr. Rudolph is a national leader in promoting the participation of historically underrepresented (HU) groups in STEM. He is founder and director of the statewide California program, Cal-Bridge, which consists of a CSU-UC PhD bridge program, and a summer research program, Cal-Bridge Summer (CAMPARE), with the mission to advance participation in STEM among groups traditionally excluded from these fields in order to increase their numbers in PhD programs, in physics, astronomy, computer science and engineering, mathematics, and other STEM fields.

Abstract:

The level of participation by underrepresented minority (URM) and women students in physics and astronomy PhD programs (as well as in other fields of STEM) is shamefully low (3-6% for URM v. 30% in the general population; 20-30% for women v. 50% in the general population). I will begin by discussing research into why these participation rates are so low for these groups, highlighting the role GRE tests play in suppressing diversity in STEM (particularly physics and astronomy), while providing little to no benefit in helping predict long-term success. I will describe some alternative methods of conducting graduate admissions, including the role of programs like Cal-Bridge.

I will then describe Cal-Bridge, a California-wide, multi-institutional UC-CSU bridge program with the mission of increasing participation of underrepresented minorities and women in STEM disciplines through scholarships, significant mentoring and professional development, and summer research opportunities, leading to an increase in their numbers completing bachelor's degrees, and successfully pursuing a PhD in these and related fields. The Cal-Bridge program is in the process of expanding from Physics and Astronomy into Computer Science and Math and eventually could become a model for all STEM fields.

Date:

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Time:

10:30 AM - 11:50 AM

Link:

Please contact
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