



SIGMA PI SIGMA

The physics honor society

Sigma Pi Sigma Chapter Project Award Final Report

Project Title	Reviving Sigma Pi Sigma chapter at Cleveland State
Name of School	Cleveland State University
Sigma Pi Sigma Chapter Number	209
Total Amount Awarded	\$500.00 (\$250 received so far)
Project Leader	Samantha Tietjen

Summary of Award Activity

SPS chapter of Cleveland State University (CSU) revived CSU's Sigma Pi Sigma chapter. The award covered the first induction ceremony at CSU in 46 years. The ceremony was followed by a reception of 40+ attendees: students, faculty, alumni, and administration.

Statement of Activity

Overview of Award Activity

The Department of Physics held its first Sigma Pi Sigma Induction Ceremony in 46 years, resurrecting the Physics Honor Society, established in 1969 but dormant since 1972. The celebration, on April 27, also recognized CSU students and alumni who have demonstrated professional and academic achievements, significantly contributed to the growth of CSU's SPS chapter, and inspired new generations of CSU physics students.

Physics Chair Petru Fodor, PhD kicked-off the celebration with the state of the department, which has boasted impressive growth over the past 12 years. CSU Physics has achieved success in both its graduate program acceptance rate and employment of our graduates. Recent alumni have gone on to NASA, the National Renewable Energy Laboratory, the European Organization for Nuclear Research (CERN), the Cleveland Clinic, Caltech, Johns Hopkins, and Carnegie Mellon among others. This growth may be attributed to the program's academic quality as well as research and teaching opportunities available to undergraduates in the department. Meanwhile, student engagement has flourished through CSU's award-winning Society of Physics Students (SPS) chapter, led for the last 13 years by Dr. Kiril Streletzky (a.k.a. Dr. S), SPS Faculty Advisor.

Presentations by SPS Vice President Ilona Tsuper, SPS Outreach Coordinator Samantha Tietjen, and SPS Faculty Advisor/SPS Zone 7 Councilor Kiril Streletzky, PhD proceeded the induction ceremony. A priority for CSU SPS has been connecting with physics alumni, an effort that began with PhysCon: The 2016 Quadrennial Physics Congress. This year, CSU physics alumni hosted their largest reunion to date at the 2018 American Physical Society March Meeting in Los Angeles. The final step was reviving the CSU Sigma Pi Sigma chapter. Sigma Pi Sigma is the Physics Honors Society that "exists to honor outstanding scholarship in physics, to encourage interest in physics among students at all levels, to promote an attitude of service, and to provide a fellowship of persons who have excelled in physics." The goal of the chapter is to link students and alumni who are active in industry and academia, which is especially important for physics majors nearing graduation and for students seeking research or employment experience.

National SPS and Sigma Pi Sigma Director Brad Conrad, PhD officiated the Induction Ceremony with assistance from Drs. Walker, Kaufman, and Streletzky. Three new members were inducted into Sigma Pi Sigma for their academic and professional achievements in physics, significantly contributing to the growth of CSU's SPS chapter, and inspiring new generations of physics students: Justin Flaherty, BS Physics (Honors) and Math, 2016, MS Physics, 2018; CSU SPS President, 2014-2016 (physics PhD student at OSU), Krista Freeman, BS Physics (Honors), 2011; CSU SPS President, 2008-2011 (PhD, Carnegie Mellon University, 2017; Post-Doctoral Fellow, University of Pittsburgh), David Spelic, BS Physics, 1985 (PhD, University of Cincinnati, 1994; Physicist, U.S. Food and Drug Administration).

CSU also recognized three Honorary Guests inducted into CSU Sigma Pi Sigma in 1970-1972: Noel Sargent Bachelor of Engineering Science in Physics, 1970 (US Delegate to ISO TC20 SC14, NASA-GRC) William Zacharias, Bachelor of Engineering Science in Physics, 1972, Master of Science in Physics, 1975 (Physics Instructor), Michael A. Centanni, Bachelor of Engineering Science in Physics (Honors), 1973, Juris Doctor, 1983 (PhD, Rensselaer Polytechnic Institute, 1977; Chief Patent Counsel, STERIS Corporation). The program concluded with student awards and recognition of SPS Chapter achievements: Outstanding Physics Senior; Research Day Undergraduate Physics Poster Award; Undergraduate Teaching Assistant Award; COSHP Valedictorian; The Dr. Jennie S. Hwang Award.

Impact Assessment: How the Project/Activity/Event Met the Purpose of the Award

Our induction ceremony on April 27, 2018 led to

- *Raising awareness of Sigma Pi Sigma in the local community and the physics community:*
CSU students and most faculty were unaware of the Sigma Pi Sigma before our event. Thanks to the event, students, faculty, and recent alumni became really interested in the Physics Honor Society. The increased number of inquiries about Sigma Pi Sigma membership is a proof of that
- *Build community among local alumni and new Sigma Pi Sigma members:*
All of our honorary inductees (recent CSU alumni) and Honorary Guests (CSU alumni from 70s) have a strong connection to North East Ohio which gives the CSU physics program and its students an important connection to physicists with direct interest and attachment to CSU.
- *Recognize outstanding achievement at the chapter level:*
The induction ceremony included recognition of student's and SPS chapter achievements of the last year. This was especially important as the college and university administration was in attendance.

Key Metrics and Reflection

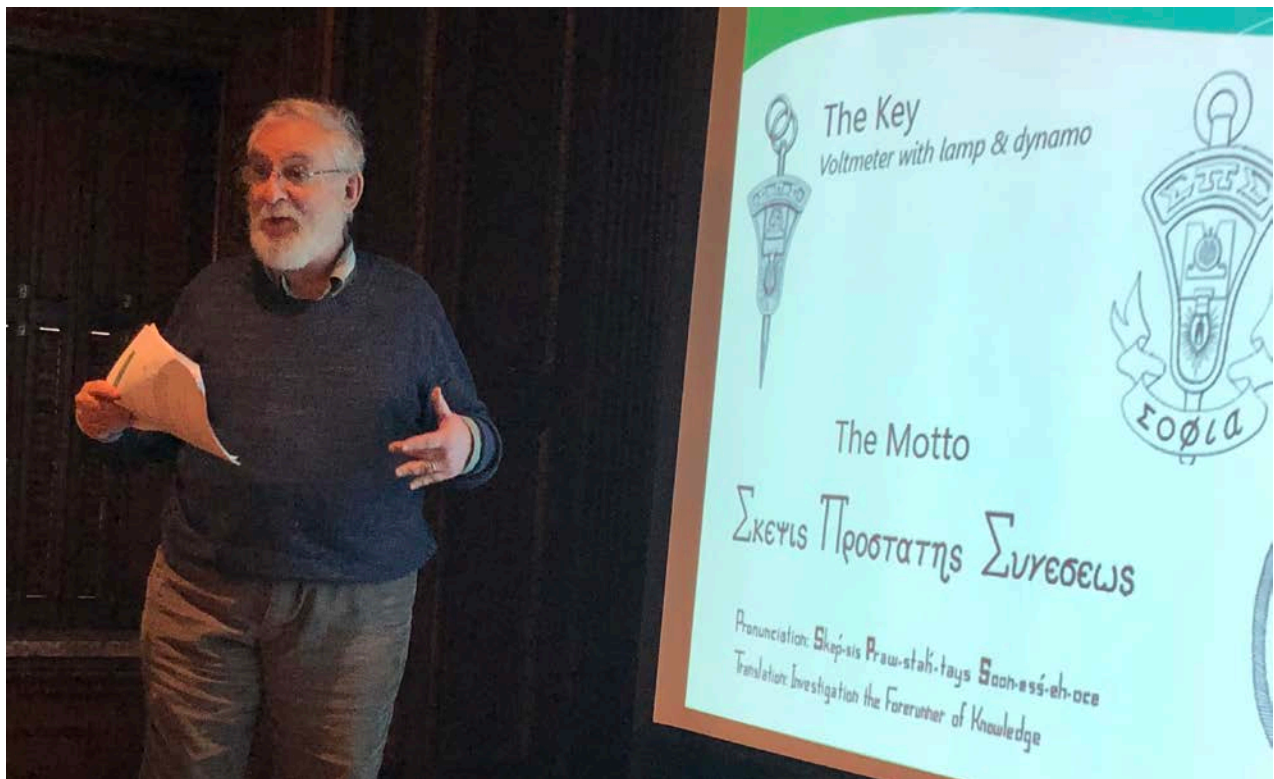
Who was the target audience of your project?	CSU students, recent and old alumni
How many attendees/participants were directly impacted by your project? Please describe them (for example "3 alumni" or "10 physics majors").	40 people total: 3 alumni from 1970-s, 1 alumna from 1980-s, 3 alumni from 2010-s, 10 physics majors, 9 faculty
How many students from your Sigma Pi Sigma chapter were involved in the activity, and in what capacity?	3 students: 2 prepared presentations for the event, 1 helped with the program
Was the amount of money you received from Sigma Pi Sigma sufficient to carry out the activities outlined in your proposal? Could you have used additional funding? If yes, how much would you have liked and how would the additional funding have augmented your activity?	It was not sufficient. The formal dinner was expensive. We had to ask the department to help (~\$250) but also had to dip into our chapter SPS funds (~\$212). An extra award of \$250 would be helpful- we could have invited more students/alumni to participate.
Do you anticipate repeating this project/activity/event in the future, or having a follow-up project/activity/event? If yes, please describe.	We plan to make the induction an annual event. Student/alumni/faculty interaction during the ceremony definitely brings out a lot of positive energy and excitement from students
What new relationships did you build through this project?	We reconnected with three alumni who are well established in the field of physics: <i>Noel Sargent</i> , US Delegate to ISO TC20 SC14, NASA-GRC <i>Michael A. Centanni</i> , PhD, Chief Patent Counsel, STERIS Corporation <i>David Spelic</i> , PhD, Physicist, U.S. Food and Drug Administration The new relationship has led to inclusion of Dr. Spelic into Depts Advisory board, and plan for Dr. Centanni to present on patent law for physicists at a Fall18 SPS meeting
If you were to do your project again, what would you do differently?	Would be more mindful of the food budget and either would raise additional funds somewhere else or switch from a formal dinner to a reception.

Expenditures

Expenditure Table

Item	Please explain how each expense relates to your project as outlined in your proposal.	Cost
food for 40+ people for induction reception	Our induction ceremony had a formal dinner to give students opportunity to interact with physics alumni and faculty	\$800
3 honorary Sigma Pi Sigma Memberships	We felt it was important to specially honor 3 of our distinguished alumni	\$162
Total of Expenses		

Activity Photos



(ABOVE) Dr. Miron Kaufman explains the significance of the Sigma Pi Sigma symbol.



(ABOVE) Newly inducted Sigma Pi Sigma members Dr. David Spelic (TOP) and Dr. Krista Freeman (BOTTOM) sign the Red Book with the help of Dr. Brad Conrad (National SPS and Sigma Pi Sigma director) and Dr. Kiril Streletzky.



(ABOVE) Dr. Jearl Walker addresses the Sigma Pi Sigma inductees. Pictured from left to right are Dr. Brad Conrad, Dr. Krista Freeman, Justin Flaherty, Dr. Jearl Walker, Dr. David Spelic.



(ABOVE) Group photos of all CSU Sigma Pi Sigma members and CSU Physics Department faculty.

