



# **SPS President Candidates 2017-18 National Council**

**Ballots Due: April 20, 2017**

**For more details, visit:**

<https://www.spsnational.org/about/governance/national-council/nominations-elections>

**Zone:** 12

**Name:** Blane Baker

**Chapter:** William Jewell College

**Biography:** BA Physics William Jewell College; MA, PhD Physics Washington University

Blane Baker is Professor of Physics at William Jewell College in Liberty, MO. There he holds the Wallace A. Hilton Chair and is an active researcher in the fields of condensed matter physics and physics pedagogy. On campus he teaches a popular course entitled Sport Science.

**Candidate Statement:** I will seek input from all SPS chapters and constituencies as we make decisions for our future. I am particularly interested in identifying institutions, desiring to engage with our society. I believe that we have great potential to increase our membership, and, at the same time, remain loyal to our overarching goal of engaging students. I will continue to be an advocate for students and will passionately work to ensure the future of SPS.

**Local/Regional Involvement:** He has served as advisor for the William Jewell College SPS chapter since 2005. The college chapter has received numerous Outstanding Chapter Awards. In addition, several William Jewell College students have received SPS scholarships and awards.

**National Involvement:** Since 2013 Blane Baker has served on the SPS National Council from Zone 12. His involvement includes active participation on the Awards and Constitution Committees. Baker has participated in installing new SPS and Sigma Pi Sigma chapters. In 2016 he received the Outstanding Advisor Award.

**Presidential Experience:** Blane Baker currently serves on the board of SySTEMic Innovations, a local business supplying educational materials for schools.

**Zone:** 14

**Name:** Alina Gearba

**Chapter:** US Air Force Academy

**Biography:** Dr. Alina Gearba is an Associate Professor in the Department of Physics at the United States Air Force Academy (USAFA) and faculty advisor of the USAFA chapters of the Society of Physics Students (SPS) and Sigma Pi Sigma, the Physics Honor Society. Dr. Gearba received her Ph.D. in Physics from Polytechnic University of Bucharest in Romania. She furthered her knowledge in physics at Niels Bohr Institute in Copenhagen, Denmark and in the United States at Colorado State University and Kansas State University. Dr. Gearba's research interests include experimental atomic, molecular and optical physics and involve laser cooling and trapping, coherent blue-light generation, and collisional excitation transfer studies for alkali lasers development. Her current experimental research program involves precision measurements of excited state atomic lifetimes and is funded by the National Science Foundation. In addition to teaching and research, Dr. Gearba is dedicated to enriching the students' experience outside classroom by involving them in SPS, outreach and other activities. As an example, this coming spring break, Dr. Gearba will accompany six USAFA physics students on a cultural immersion trip to Geneva, Switzerland. Trip highlights include CERN, the United States Mission, United Nations, International Federation of the Red Cross, and the Jungfrau region of the Swiss Alps.

**Candidate Statement:** I have been involved with SPS at various levels as a faculty member for over a decade and I have come to realize how much I missed out during my undergraduate career in Romania not having the support of a national student organization. Therefore I made a life-long commitment to the SPS National mission of “helping students to transform themselves into contributing members of the professional community”. It was a rewarding experience to serve in the SPS National Council as Zone 10 Councilor and I would be honored to continue serving the Society as its president. If elected president I will work with the Associate and Zone Councilors to reach out to every SPS chapter in the country to make their members aware of the programs, resources and opportunities SPS National has to offer. Networking, leadership skills, research and outreach awards, scholarships and internships will benefit them for a lifetime and I would be honored to bring my humble contribution to their career advancement. I will also work with the American Institute of Physics to ensure that the Society’s voice is heard, now more than ever, when it comes to undergraduate research, outreach, diversity and inclusivity.

**Local/Regional Involvement:** Dr. Gearba has been involved with SPS and Sigma Pi Sigma since 2004. She previously served as faculty advisor of the SPS and Sigma Pi Sigma chapters at the University of Southern Mississippi (USM). Both USAFA and USM SPS chapters received their first Outstanding SPS Chapter Awards under Dr. Gearba’s leadership. The USM chapter continued to receive the Outstanding Chapter Award for six additional years, while USAFA just received their second. Several Future of Physics, Marsh White, Chapter Research, Student Research and Sigma Pi Sigma Awards (12 between the two chapters) were also received under her leadership. In addition, both USAFA and USM SPS chapters hosted their first SPS Zone Meetings during Dr. Gearba’s tenure as faculty advisor. She was also instrumental in installing the USAFA Sigma Pi Sigma chapter. Dr. Gearba served as an expert for a national outreach campaign “Absolute Zero and the Conquest of Cold” designed to promote low-temperature physics and together with her USM chapter reached out to more than 1,000 high school students within the state of Mississippi. She hosted Physics Nobel Laureate Eric Cornell twice arranging several informal meetings with the SPS students.

**National Involvement:** Dr. Gearba was honored to serve in the SPS National Council as faculty representative of SPS chapters from Mississippi, Louisiana, Arkansas and western Tennessee (SPS Zone 10 Councilor). As council member, she chaired the “Underrepresented Groups in Physics” committee tasked with drafting the SPS Future Faces of Physics Award designed to promote physics across cultures. She also chaired the “Undergraduate Research” committee tasked with evaluating the SPS programs, activities and initiatives aimed at encouraging undergraduate research. In addition, Dr. Gearba served as chair of the “Long-Range Vision” committee tasked with brainstorming ideas regarding the 50th anniversary of SPS and 100th anniversary of Sigma Pi Sigma. Dr. Gearba also served as planning committee member of the 2016 Quadrennial Physics Congress held in San Francisco this past fall. With an attendance of about 1200 students, faculty and alumni, the congress was perhaps the largest conference in the world aimed primarily at engaging physics undergraduates. Serving as council and congress planning committee member required multi-year commitments of six and four years, respectively, and involved face-to-face meetings as well as teleconferences and videoconferences.

**Presidential Experience:** As mentioned above, Dr. Gearba served in the SPS National Council as Zone 10 Councilor for six years chairing various committees. In addition, she served as chair of the Physics and Engineering Division of the Mississippi Academy of Sciences.