

Society of Physics Students traveled to Orlando Florida for the 2012 Quadrennial Physics Congress

By Dr. Candice Fazar



In early November, six members of the Roberts Wesleyan College chapter of the Society of Physics Students traveled to Orlando Florida for the 2012 Quadrennial Physics Congress *PhysCon* hosted by Sigma Pi Sigma, the physics honor society. As part of this trip, students had the privilege of touring the Kennedy Space Center, where they were able to see the launch pads and hear many interesting anecdotes from tour guides. Two students Justin Barleben and Cody Laraby were selected to go on the press bus. As a result they were able to go inside NASA labs and see current research projects, such as the materials testing department that was investigating possible lunar and

Martian landing pads. Both students raved about their experiences and were blown away by how much can be accomplished through science and technology. In their words, *"NASA is continually innovating and pressing the fringes of science, and it was motivating for students to see what kinds of exciting things can be yielded from a hard earned education in physics."*



There were many favorite parts of the conference besides the NASA tour including Breakfast with the Scientists, where students could network with physicists working in various fields of industry and government. This not only led to the feeling that all of their hard work in physics will actually be useful someday, but also to potential internship and job opportunities. In addition, there were many well-received speakers who spoke on everything from science policy to astrophysics. Henry Reich, the creator of minute physics videos, was one of these. Regarding his talk Kelly Anderson says, *"I admire Henry Reich's ability to explain difficult*

concepts using simple terms; it is a skill the scientific community as a whole needs to learn." Sharing tools for exciting new audiences about the wonders of physics was one of the primary goals of the conference. Speaker Dr. David Saltzberg, the science consultant for CBS's *The Big Bang Theory*, would say that one of the best ways to bring in a whole new generation of physicists is to make physics 'cool'.

Another wonderful opportunity at the conference was embraced by two students, Kelly Anderson and Aaron VanDyne, who presented their summer research projects. From having people genuinely interested in hearing about their work, to gaining a better understanding of the physics community, the students were pleased with the well-attended thoughtful atmosphere of the poster session. Aaron writes, *"My favorite part of the conference was getting to present my research. I got a lot more interest in my poster than could have been generated at Roberts. This can really be ascribed to the fact that the conference had a lot of attendees who were knowledgeable about my research and shared my*

interests.” Kelly’s experience was similar, as she recounts being impressed by the number of people who asked her about her research, though they had no prior knowledge or experience in the area. She writes, “In science there is often some sort of competition to be the first to discover something, but when the discovery is made the scientific community is quick to express their joy. It is exciting to know that I will soon be part of that community.”

It was this kind of community that inspired the theme of the conference, *Connecting Worlds through Science and Service*. Kayla O’Connor recounts, *“I was impacted by and gained a better understanding of the physics community. There is a much larger group of people than I imagined that all share in the same passions and way of thinking. It was nice to be a part of that ...and to experience physics outside the ‘Roberts bubble’.”* In addition to feeling they were a part of something far larger than themselves, the experience as a whole brought the group closer together. In the end, all agreed that every student should have an opportunity to attend a conference like this one.



On the final day of their stay in Orlando, the students went to Disney World’s Magic Kingdom. It was there that they were finally able to relax and just enjoy being together. Dr. Fazar remembers, *“It was in Space Mountain, when the students began to discuss the physics of how the image of the rotating space station above their heads was generated that I knew my job was complete. When students begin thinking like physicists, seeing the wonder of how the world works in their everyday lives, they have finally become their own teachers and scientists in their own right.”* A student comments, *“One of my favorite moments was*

when we went to Magic Kingdom and rode the haunted house ride. I fully expected it to be hokey (and at first it was), but after a short while we came upon a dining room scene, where there were very impressive ghosts flying around the room. They were very convincing projections; some disappeared and reappeared while others could be seen flying through walls and the like. After the ride was over, the six of us spent a good ten minutes or more discussing our theories on how exactly they rigged the projections. I was forced to make the amusing conclusion that you can take a physics student out of the classroom, but you can’t take physics out of the student.”

In the end, all agreed that every student should have an opportunity to attend a conference like this one. Student Kelly Anderson sums it up well, *“PhysCon was an invaluable experience, and I would attend it again in a heartbeat. It was thoroughly planned, tastefully located, and delightfully educational. To anyone considering PhysCon 2016-- Fundraise. Beg. Do whatever it takes to make sure you experience this once-in-a-lifetime opportunity.”*