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Diversity Statement

One of the most important challenges facing the sciences is how to cultivate diversity without lowering physics standards and still allowing equal opportunities. Objectively, a diverse field leads to a larger community and greater public interest as well as insights from personal experience. Diversity is a complicated issue, and unfortunately, one that is larger than the Physics community. Cultural norms have been set on an unhealthy path for generations, and are just recently starting to support equality. So we can either wait for society to self-correct, or we can be proactive.

In order to expand the interest for a career in the sciences, we need to interact with people while they are still developing the idea of cultural norms. From a faculty point of view, this means expanding the outreach program. In my undergraduate and graduate careers, I have gained experience on how to inspire people at these events. There are an array of interesting and fun demonstrations that can pique the interest of people at this pivotal point of development. In my physics career, I have gained experience helping with outreach, from the yearly university shows to the USA Science and Engineering Festival. During these outreach opportunities, I would perform various demonstrations – my favorite of which is the cloud chamber, which offers a priceless opportunity to show particle physics in action. However, still, these outreach opportunities can be better directed. There are certainly ways of targeting groups that are underrepresented in the physics community, for example, a careful determination of the community location for the event or through targeted advertisement. I have experience with the effect that this type of outreach can have from graduate school in Baltimore, where we would travel to local schools and perform basic physics presentations. In this way, we can reach out to schools directly that have a higher underrepresented population and cultivate an interest in the field.

Outreach, and promoting sciences to underrepresented groups will help improve the issue of diversity with the next generation of physicists. At the point that students reach the college level, these norms are well established and the best way for a faculty member to address diversity is through flexibility. We need to understand that underrepresented groups may not have the same level of preparation (given differing socioeconomic conditions) or confidence (given the discouragement from cultural norms) and we need the flexibility to accept these discrepancies. This does not mean that we lower the standards, but rather that it is the obligation of the instructor to provide individual attention to struggling students with the understanding that these issues can be possibly influenced by inequality.

Diversity is a problem that is easy to simplify but difficult to influence. We need to develop productive methods to inspire the next generation of physicists in a way that is directed towards underrepresented groups. As a faculty member, I would work to expand the outreach program in a targeted way and have the flexibility to ensure that all students have a chance to succeed.