

Snowmass2021 Letter of Interest : Recruitment, Evaluation, and Recognition

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Thematic Areas:

- CommF1: Applications & Industry
- CommF2: Career Pipeline & Development
- CommF3: Diversity & Inclusion
- CommF4: Physics Education
- CommF5: Public Education & Outreach
- CommF6: Public Policy & Government Engagement

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Abstract: This is a group-written contribution pertaining to how we evaluate and recognize what it means to be "a good scientist" in particle physics and how this parlays into recruitment and career advancement.

Elements of Interest :

- Transparency of protocols and procedures
- Best practices in student admission and faculty hiring with the *goal* of creating diversity (i.e. hiring committees, outreach, outcomes)
- Two body problem → two body *opportunity*
- Best practice in evaluating research proposals
- Awards, speaker selections @ conferences, collaborations
- Power dynamics between senior and junior scientists
- How to reward people that have done good deeds for advancing the diversity in the field

General Description :

Doing “good science”, although intrinsically interesting and providing a significant motivating factor to pursue a career in particle physics, must also be rewarded and recognized in pragmatic ways. One dimension of this pertains to professional advancement : the manner in which students are selected and admitted to institutions and scientists and faculty are hired and promoted. Beyond professional advancement, rewarding one’s scientific merit is also made in “soft” ways including being selected to present at a conference, potentially on behalf of a group of individuals thereby being the representative face of that collaboration or sub-field. And within larger collaborations, good work can often be rewarded by “internal promotion” which does not come with monetary benefits but where individuals are given increased responsibility and greater visibility as an expert on a certain topic. This, in turn, can be leveraged for professional advancement. The manner in which these decisions are made is in no way uniform and often-times relies heavily on individual professional networks, thereby not rewarding “good science” but “who knows who”. It also means that the recognition of junior colleagues is more directly reliant on the power dynamics with the senior colleagues most closely connected to their work. This is inequitable and prone to creating “in” and “out” groups. This is sometimes referred to as “gatekeeping” and can be done intentionally or unintentionally.

Furthermore, evaluation often relies on the intra-community evaluation of an individuals performance which can exacerbate biases in perceived performance¹. For example, a university may promote instructors based in part on student evaluations of their teaching. Such evaluations of a female instructor tend to result in characterizations of the individual having motherly qualities, while white men tend to be seen as an authority on the field. This creates an uneven expectation for instructors, especially graduate students who need to teach or professors pursuing tenure. Such built in discrepancies in perceived performance are not thoroughly taken into account by hiring committees or other evaluating bodies.

Many institutes and collaborations have ‘Diversity, Equity, and Inclusion’ committees, yet the work done within these bodies tends to not be implemented and the individuals doing the work are not rewarded in a professional capacity. Additionally, the current culture of physics categorically places DEI work as an optional ‘service’ and sometimes as a ‘distraction’ from research rather than a necessary and important aspect of the job. In fact, there is evidence that these service activities fall heavily on the shoulders of underrepresented groups and negatively impact the promotion or advancement for the engaged individuals,.

This LoI proposes to study this concept of how we as a community evaluate and reward “doing good science”. It can include a survey and comparative study of how different institutions and large collaborations make decisions regarding promotion and hiring. It can also study how selection committees at all levels are formed and function and form a set of “best practices” in student admission (e.g. Are graduate entrance exams a good thing?) and how to reward people who have worked to advance diversity in the field and how this itself promotes “doing good science”.

¹<https://hbr.org/2017/04/how-gender-bias-corrupts-performance-reviews-and-what-to-do-about-it>

