



# SOCIETY OF PHYSICS STUDENTS

An organization of the American Institute of Physics

## Future Faces of Physics Award Proposal

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Project Proposal Title	Promoting Indigenous Voices in Big Science
Name of School	Ithaca College
SPS Chapter Number	3183
Total Amount Requested	\$409.00

### Abstract

The Ithaca College SPS chapter proposes to organize a panel and group discussion in collaboration with the Center for the Study of Culture, Race, and Ethnicity to showcase the importance of Indigenous ideology in big science projects such as the Thirty Meter Telescope on Mauna Kea.

# Proposal Statement

## **Overview of Proposed Project/Activity/Event**

This event will take place in a large lecture hall on the Ithaca College campus where all faculty, students, and visitors are welcome to attend. The guests of this panel are still to be confirmed but there will be scientists and Indigenous leaders presenting on their experiences in the intersection of science and Indigenous communities, the specific example of Mauna Kea and the Thirty Meter Telescope being highlighted. The motivation of this event is to raise awareness for the importance of Indigenous voices within STEM and big science. In addition, we are trying to promote future students who wish to pursue a career in STEM to consider their impact. There will be no entrance fee to make the event accessible to everyone and refreshments will be provided during the event.

The event will consist of a panel with guests that represent both scientists and Indigenous leaders. It will be in collaboration with other clubs that have to do with STEM such as Engineering Club, Chemistry Club, Environmental Club, Biology Club, and Math Club; however, the Ithaca College SPS chapter will be the main organizer of this event. It will be held in a large lecture hall of Ithaca College in the beginning of spring semester, all students, faculty, and visitors will be invited and are welcome to join the panel. The event will start with a small presentation by a local professor from the Center for the Study of Culture, Race, and Ethnicity. He is an Indigenous leader with research focusing on the Thirty Meter Telescope and Mauna Kea. The panel will work by starting out with a set of questions that will initiate discussions to be made prior to the event and will be asked to our guests with the goal of understanding how colonial ideology plays a role in their respective fields. The panel will also reflect on their experiences with Indigenous people. There will be a collaboration with the Center for the Study of Culture, Race, and Ethnicity at Ithaca College for further development on an excellent set of questions; however, the panel will also be open for questions to all attendants of the event.

The goal of this project is to raise awareness for the importance of Indigenous voices in big science projects such as the Thirty Meter Telescope on Mauna Kea. A secondary goal is to broaden attendees thoughts on the nature of western science, its relationship with the science of other cultures, and the influences that shape both groups' future.

Ithaca College is a liberal school with a Physics Department that consists of 40% female students, which is an astounding achievement worth showcasing. We want to ensure that all students that are part of minority groups are aware of the people out there that are like them. In addition, we want to make sure that they feel included in any field they are a part of so that they can be successful no matter what path they choose. Lastly, we want to raise awareness for all the people who are not part of minority groups about the different experiences that people of minority groups go through, and be able to reflect on their own experience.

The intended audience of our event are students, faculty, and visitors from all fields and backgrounds. This event has the opportunity to help all people expand their thoughts on the subject of science and its relationship to western power and Indigenous people.

This event would be a fantastic opportunity for the Ithaca College SPS chapter to follow up on it's previous FFP award which was used for a Minorities in STEM panel discussion. This event is being crafted from the successes and lessons learned from that event, with increased focus on inclusion and participation from the attendees. We are very excited to have the opportunity to extend the reaches of our organization outside of the department walls and collaborate with the Center for the Study of Culture, Race, and Ethnicity.

## **How Proposed Activity Promotes Physics Across Cultures**

The most obvious void in the field of Physics is its connection to culture. Our noble science often seeks to rise above or around the premise of culture and society with its earnest commitment to discovery and definition of reality. This intention does not effectively protect a current Physical Paradigm from influence. In fact, through analysis of funding and preferred topics of research, one can see the societal preferences that permeate through the objectives and beliefs of current physics. This directly combats a meaningful connection to minority groups who may not hold the same societal priorities and, as a result, opinions of scientific paradigm.

This activity is a brave opportunity to open up often overlooked influences amongst students who may need to know how to make the physical sciences accessible to them. During this process, students from our SPS chapter will begin conversations and internal growth in areas that will never be made available to them by their standard curriculum. This is exactly in line with one of SPS's most important charge of providing its students with the opportunities that a physics department cannot itself provide.

It is students like ours who will soon become educators, scientists, and world influencers. The diversity provided by programs such as our proposed event is incredibly important for these students to take with them as they follow their paths, bringing their passions and ideals with them. SPS teaches the importance of an impactful experience that forces thinking in ways unexploited by our degree, demonstrating just how far a small idea can spread. It is for these reasons that this activity is worth funding.

## **Plan for Carrying Out Proposed Project/Activity/Event**

This project will be co-led by the President and Vice-President of our local SPS chapter, Robert Melikyan and Wyatt Vigilante. These two were directly in charge of the previous FFP award and resulting event. It is particularly Vigilante's eye-opening experience with a professor in the Center for the Study of Culture, Race, and Ethnicity that led to the conception of this event. The event will be further aided by faculty speakers and other guests along with the opportunity for other student leaders/organizations to get involved.

Marketing for this event will follow similar strategies as displayed by our Minorities in STEM event. The process will be made easier through increased collaboration across even more departments than before. While posters seem to be the most effective form of communication on this campus, efforts will be made to ensure a well developed Facebook event with opportunities to open up discussion prior to the event, and other related forms of electronic marketing.

With the strength of participation showcased across our chapter, it is likely that SPS will be able to provide up to 10 volunteers for this event. It will be imperative to the balance and success of this event to have some students from the Center for the Study of Culture, Race, and Ethnicity invested in this events success.

Our Physics department has a faculty who has personally studied on Mauna Kea and is quite excited to share their perspectives on today's activities concerning the mountain. The SPS Chapter President is a seasoned veteran in event planning and science outreach while the Vice-President is uniquely in tune with the sensitivities and importance of the subject. Additional support will be provided by the faculty guests outside of the department

## **Project/Activity/Event Timeline**

The exact date of the event is yet to be confirmed from Ithaca College. However, the anticipated date is February 6 th, 2019. The booking of the location(lecture hall) will be done 1 month in advance from the event date, and the catering will be taken care of a week prior to the event. The final guest list will be confirmed by the end of December 2019 and the inquiries to potential guests have already begun. The final schedule that the event will follow will be finalized by the end of December. Current things that will be done first include communication and

finalization of all volunteers for the event from other clubs of Ithaca College, such as Engineering Club, Chemistry Club, Biology Club, Math Club and Environmental Club. The SPS Chapter at Ithaca College will be in charge of the finalization of all departments or faculty members that would like to participate in the organization of this panel. This will include the Physics department and the Center for the Study of Culture, Race, and Ethnicity, which are both to be done by the end of December.

## Activity Evaluation Plan

The Society of Physics Students chapter at Ithaca College will evaluate the success of the event by reflecting on how we successfully met the main goal of promoting physics across cultures through several different ways. Firstly, if we meet the expected attendance numbers to be approximately 80 people, it will be evaluated by asking people if they were interested in the promotion of Indigenous voices within big science. We will also ask attendees to reflect on how science knowledge is being transferred and translated through scientists and Indigenous leaders. We will give a very brief survey sheet at the end of the lecture to see whether people actually found the panel useful, worthwhile, and educational to be able to better understand the outcomes that the participants had from this event. Also, this can be determined through the participation of the attendants during the discussion, as there will be an ample amount of time for questions and further discussion. In the survey sheet that will be given at this end, we will also ask for any feedback that could be taken into consideration for future planning of events like this.

## Budget Justification

The funds we are hoping to acquire for our event will be used for a couple purposes. As shown in our budget, the majority is going towards food for the event. This is in the hopes of attracting more participants to the event, especially those that would have chosen a meal during that time, but perhaps still wanted to attend. The food should also help those attending to stay satisfied and engaged with the discussion. We are expecting a large quantity of people, and so the amount we are spending on food reflects that.

The rest of our budget is allocated for advertisements. We figured the most effective way to get the word out is through posters around the college, in places where most people will see them. 100 copies seemed like a good estimate when it came to the amount of area we are hoping to cover.