



# SOCIETY OF PHYSICS STUDENTS

An organization of the American Institute of Physics

## Marsh White Award Report Template

Project Proposal Title	Promotion of Physics in the Hattiesburg Community
Name of School	The University of Southern Mississippi
SPS Chapter Number	6626
Project Lead (name then email address)	Megan Payne megan.payne@usm.edu
Total Amount Received from SPS	\$500.00
Total Amount Expended from SPS	\$500.00

## Summary of Award Activities

The Society of Physics Students chapter at The University of Southern Mississippi participated in a local festival, Hubfest. The club worked a booth performing multiple physics demonstrations. These demonstrations included dipping various objects into liquid nitrogen, a handheld bed of nails, demonstrations with waves, lasers, etc. One of our members froze a racquet ball in liquid nitrogen and went to the center of a large audience and smashed it onto the ground. It was filmed by our local news station. Overall we got to speak or interact with approximately 1,500 people.

## Statement of Activity

### Overview of Award Activity

- Brief description – The Society of Physics Students at The University of Southern Mississippi participated in a local festival called Hubfest. The group set up a booth and performed multiple demonstrations in physics for festival goers. These demonstrations included dipping objects in liquid nitrogen, a handheld bed of nails, lasers, demonstrations with waves, etc.
- Outcomes – The club's booth drew many people's attention and sparked interest in physics to the general public. We were also filmed by our local news station.
- Audience – The club saw people of all ages, from young children to senior citizens. We saw roughly 1,500 festival goers that day.
- Context of the Project – This project was a great opportunity to perform the normal demonstrations, with a few new exceptions, but to a much larger, broader audience.
- Highlights and stories – One of our favorite demonstrations is when a member dips a racquet ball in liquid nitrogen to demonstrate that after being chilled it no longer bounced. The club would gather a huge crowd, and our member would smash it on the ground. The demonstration was always followed by clapping, and on one occasion, was filmed by our local news station.

### Impact Assessment: How the Project/Activity/Event Promoted Interest in Physics

- A list of the proposed project goals and commentary on whether those goals were met- The goal of this project was to promote interest in physics to a large audience. We wanted to work a booth at Hubfest and speak to as many festival goers as possible.
- We ensured that our Physics demonstrations were explained thoroughly to our audience
- We provided more hands-on demonstrations than in previous years
- We witnessed a greater interest from the hands-on demos. This was noted by audience excitement and an increased time the festival goers spent at our booth. We even had a group of second graders that spent almost the entire festival at our booth. We had several parents leave their children at our booth while they shopped, as the kids did not yet want to leave.

## Key Metrics and Reflection

Who was the target audience of your project?	General public, especially children
How many attendees/participants were directly impacted by your project? Please describe them (for example "50 third grade students" or "25 families").	Approximately 1,500 attendees
How many students from your SPS chapter were involved in the activity, and in what capacity?	6
Was the amount of money you received from SPS sufficient to carry out the activities outlined in your proposal? Could you have used additional funding? If yes, how much would you have liked and how would the additional funding have augmented your activity?	Yes, it was sufficient. We did not need more funding.
Do you anticipate repeating this project/activity/event in the future, or having a follow-up project/activity/event? If yes, please describe.	Yes. Hubfest is an annual event and we hope to attend this event in the future.
What new relationships did you build through this project?	Our hands-on demos encouraged close communication with the children attending the event. One even asked if we could attend his elementary school to show his friends.
If you were to do your project again, what would you do differently?	A better wave generator would be used. The generator got a comparable amount of attention from the children this year as our liquid nitrogen demos did. Children liked that they could stretch out the generator themselves and play with a friend.

## Expenditures

### Expenditure Table

Item	Please explain how this expense relates to your project as outlined in your proposal.	Cost
Hubfest Registration Fee	Required	\$200
Balloons	For liquid Nitrogen demo and Bed of Nails demo	\$12
Racquetballs	For liquid Nitrogen demo	\$30
Batteries	To ensure lasers are operational	\$5
Marshmallows	For liquid Nitrogen demo	\$35
Water	For SPS volunteers	\$20
Trash bags	Used for clean up	\$5
Tarp	Used to protect tables from marshmallow bits	\$5
Snacks	For SPS volunteers	\$15
Napkins	Used for clean up	\$3
T-shirt Materials	Students that attended Hubfest designed and created their own bleached t-shirts. These were worn to the event.	\$30
Handheld Bed of Nails	For Pressure Demo	\$40
<b>Total of Expenses</b>		<b>\$400</b>

Activity Photos



















If you have any questions, please contact the SPS National Office Staff  
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