



## Marsh W. White Award Report

Project Title: Physics on the Move

Institution: Saint Joseph's University (6186)

Project Lead: Calvin Huisentruit (ch739149@sju.edu)

Received from SPS: \$500

Amount Expended: \$523

## Summary of Award Activities

Saint Joseph's chapter of SPS engaged members of the community in movement based physics demonstrations. The event took place outdoors on SJU's University City campus to allow easy access from the public to attend the event. We had 3 SPS members organize the event and another five SPS members present during the event. 2022 SPS co-President, Kayla Dickert, wrote the proposal and received the Marsh White Award for the "Physics on the Move" event. Then 2023 SPS Treasurer, Calvin Huisentruit, carried out Dickert's proposal and coordinated the event.

## Statement of Activity

### Impact

### Assessment:

Our SPS chapter set up several activities to demonstrate different physics phenomenons including the conservation of momentum, projectile motion, gravity, angular momentum, and a tensegrity structure. These demonstrations focused on sharing the viewable physics of the world. Our goal was to generate curiosity in our guests and have fun. Overall it was a great experience shared with members of our community and physics colleagues. Collaborating with the faculty,

coordinating with members of our university and sharing our knowledge with others was highly fulfilling.

### **Key Metrics and Reflection**

|   |  |
|---|--|
| Who was the target audience of your project?  | <b>3rd graders- University level</b>   |
| How many attendees/participants were directly impacted by your project?   | <b>About 8 college students, 2 members of the community, and a professor</b>   |
| How many students from your SPS chapter were involved in the activity, and in what capacity?  | <b>3 critical role, 5 supporting</b>   |
| Was the amount of money you received from SPS sufficient to carry out the activities outlined in your proposal?<br>Could you have used additional funding?<br>If yes, how much would you have liked, and how would the additional funding have augmented your activity? | <b>Yes it was sufficient and enabled us to put on the outreach event we wanted. We used some additional demonstrations from the department to bolster the list of attractions.</b> |
| Do you anticipate repeating this project/activity/event in the future, or having a follow-up  | <b>Yes, I think we have a better understanding of outreach events and how to improve</b>   |

|  |  |
|--|--|
| project/activity/event? If yes, please describe.                     | <b>upon this year's event.</b>   |
| What new relationships did you build through this project?           | <b>Built better community amongst our SPS chapter's members.</b>   |
| If you were to do your project again, what would you do differently? | <b>Have multiple people working on the project throughout the process and advertise more in advance.</b> |

### Press Coverage

For this project, we received Social Media coverage from our chapter's Instagram account.

Instagram: [@sju.sps](https://www.instagram.com/sju.sps)

### Expenditures

#### Expenditure Table

| <b>Item</b>        | <b>Please explain how this expense relates to your project as outlined in your proposal.</b> | <b>Cost</b> |
|--------------------|--|-------------|
| Newton's Cradle    | Demonstrate Newton's First Law   | \$20        |
| Ramp Demonstration | Understand gravity and friction  | \$125       |

|                          |  |              |
|--------------------------|--|--------------|
| Ramp Toy                 | Elementary example of gravity and wheels                     | \$22         |
| Toy Cars                 | Used in ramp demonstration                                   | \$30         |
| Projectile Demonstration | Projectile motion experiment (predicting where it will land) | \$50         |
| Rotating Platform        | Used in conservation of angular momentum                     | \$85         |
| Posters                  | Helped spark interest and create decorative atmosphere       | \$60         |
| Marbles                  | Used for projectile motion                                   | \$15         |
| Tensegrity Structure     | Interesting physics involved                                 | \$32         |
| Pencils                  | Giveaways to participants                                    | \$12         |
| Tablecloth               | Decoration   | \$30         |
| Basketball               | Ball Drop Demonstration                                      | \$30         |
| Tennis Balls             | Ball Drop Demonstration                                      | \$12         |
| <b>Total</b>             | -  | <b>\$523</b> |

Expenses in excess of the Marsh White grant of \$500 will be covered by local chapter funds.

## Activity Photos



Five SJU SPS volunteers holding demonstrations from the Marsh White: *Physics on the Move* event.



Joined by our physics professor, Dr. Habdas.



Demonstrating angular momentum

2022 SPS co-President, Joe Popp, showing off angular momentum to interested students.