## Key information for Summer 2025 Physics & Astronomy Research Opportunities

## Timeline:

- **Nov 6**: Information session.
- Nov 7- 30 <u>Watch faculty research videos</u> and review web pages; contact faculty if directed by their expressed expectations on the research videos page.
- **Dec 6**: <u>Application</u> for Swarthmore Physics & Astronomy research opportunities due.
- **Dec 20:** Students notified of position offered (subject to College funding), wait list, declined.
- Jan 10: Some students will be asked by faculty advisors to commit by this date.
- Late Jan, 2025: Apply for College funding
- March 7, 2025: College funding typically confirmed; commitment required from all soon after
- May 19-August 8, 2025: Summer research time frame. Students commit to 8-10 weeks during this time frame. Specific duration and dates (including any vacation interruptions) approved by faculty advisor by April 1 (many faculty may wish to finalize this earlier).

## Qualities considered in selecting summer research students

- **Dependability and maturity**: We seek students we can trust as collaborators in our scholarly work.
- Willingness to acknowledge and correct mistakes: This is essential to being a good researcher.
- **Independence and self-regulation**: We seek students who will move their own work forward without requiring faculty to micromanage them, and who will develop the ability to recognize when they need to ask questions and get input.
- **Collegiality**: We seek students who will be supportive, encouraging colleagues to fellow students and other members of the research group.
- **Continuity**: The longer a student engages with a research project, the more they will learn about it and gain the ability to contribute meaningfully. Consequently, ongoing engagement is beneficial to both the student and the faculty member. Many faculty strongly prefer to work with students for more than one summer, or wish students to begin research the semester before the summer or continue for the semester after.
- **Particular content background**: Some research projects may require particular physics, astronomy, or computation background, while others are accessible to all students.

Our department prioritizes the qualities above to select the students with the greatest promise for making the most of the opportunity to participate in research. We do **not** primarily select students who have earned the highest grades in our courses. Being a good researcher demands some different qualities as well as some common qualities with being a successful classroom student. A number of highly successful scientists were not particularly good at classes but displayed the determination, persistence, and initiative needed to be outstanding researchers.

## Primary sources of evidence of these qualities:

- Consistency of effort and responsibility for learning displayed in classes
- Interactions with peers observed in and out of classes
- Appropriate initiative in engaging with faculty about research during this process
- Reliability and independence working as a Photon, grader, researcher, or observatory assistant