Travel to Present Proposal
Your First and Last Name
Conference Name
Faculty Sponsor
Date

Project title: Lower Bounds on Error-Detecting Codes for $\mathfrak{su}(2)$-type Quantum Metric Spaces

Sponsor of Conference: American Mathematical Society

Location: Boston, MA

Justification of Proposed Expenses: The 2023 Joint Mathematical Meetings (JMM) will be held January 4th through January 7th. I will travel to the meeting from Newport News, Virginia via train on January 3rd. I will stay in an official JMM hotel from the night of January 3rd through the morning of January 8th. Meeting registration and check-in will be held from 7:00 a.m.-3:00 p.m on January 4th, and the first sessions begin at 8:00 a.m. on the same day. The meeting will run until 6 p.m. on January 7th. The charge of $832.62 to stay in the JMM hotel includes a room fee of $143 per night for five nights (January 3-January 8) and the hotel tax of 16.45% per night, which adds $117.62 in taxes and fees.

Impact on your Skidmore education: The JMM is the largest mathematics gathering in the world. By attending, I will **gain exposure to a diverse range of mathematical subfields** and **learn about active and significant research** taking place in fields **I have studied here at Skidmore**. The **original research** I will present at this conference could not have been done without the knowledge of Lie algebras and their representation theory I gained through **independent studies under Professor David Vella in the Skidmore mathematics department.** Furthermore, this semester I am undertaking an independent study on the mathematical foundations of quantum mechanics with **Professor Jeremy Wachter in the physics department** in preparation to **write a section of my senior thesis on the research I will present**. Developing and presenting my talk at the Pi Mu Epsilon Contributed Paper Session of the JMM meeting will further **enrich my knowledge of these topics** and help me **make connections to broader questions in mathematics** in my honors thesis.

Impact on the Skidmore community: I am in my second year serving as the **Captain of the Physics Peer Academic Coaching (PAC) team.** At the JMM, I will attend sessions on **creating inclusive mathematical environments**, promoting **equity**, and **teaching mathematics** effectively. These sessions will inform the way I interact with students who attend our PAC sessions and help me to foster an **accessible and effective PAC community**. After attending the conference, I will use the weekly PAC team meetings I lead to pass on what I have learned by discussing **best-practices in pedagogy** and methods for creating an **inclusive academic environment**. Not only will this be of direct benefit to **the students who attend Physics PAC**, but it will also **aid the members of the Physics PAC team** who will go on to be professors and teachers.

Attending the conference's **career and graduate school fairs** will inform me of the career opportunities open to mathematics graduates of various levels. **I will compile helpful resources** I encounter and **share them with other Skidmore students** both **informally** and **through official PAC events and sessions**. Last winter, I initiated, organized, and ran two special events for students to learn about summer research programs. I will **run these workshops** again in February of 2023 to **pass on to students the tools that I have gained at the conference**, helping them to prepare for success in internships and summer research experiences.