

## **King's Medal 2023**

The King's Medal is awarded to the graduating student who stands highest in an Honours programme in an Arts or Science subject.

The winner of the King's Medal for 2023 is:

### **Alison Clarke**

Alison Clarke is the recipient of the King's Medal for 2023. Alison has graduated with a Bachelor of Science with Combined Honours in Physics and Mathematics and has achieved First Class Honours. Her academic record demonstrates an incredibly strong grade-point average across all years of study at King's.

Alison is an exemplary student, a shining star in her department and a natural leader. Alison's instructors remark that she stands out not only for her aptitude for the material but also because of her enthusiasm and the insightful questions she asks in class. Among several scholarships, Alison won the prestigious Burgess McKittrick Award from the Physics and Atmospheric Science department, which is given to the highest ranked student in our first-year physics course (out of more than 400 students) entering a program in physics.

In 2020, Alison began a summer work term that focused on quantum-related research topics. The project involved carrying out numerical simulations of optically driven excitons in semiconductor quantum dot systems. Alison's supervisor, Dr. Kimberley Hall, remarks that Alison approached her work with boundless energy and enthusiasm with a level of organization and commitment that she had seen in very few students. Alison's contributions to the research project led to a publication in *APL Photonic* with Alison as a coauthor. Considerable attention was given internationally to the research in the quantum optics field, a feat rarely achieved by an undergraduate student. Alison's theoretical work was extended to experimental work building a new pulse shaper for quantum control for her Honours project, entitled "Implementation of Pulse Shaping Techniques for Ultrafast Spectroscopy."

Alison has been an active participant in the Department of Physics and Atmospheric Sciences' EDIA committee, as well as the Student Success, Engagement and Diversity Committee since its inception. Alison has been an active voice in positive change for the department, including a student-led renovation of the undergrad lounge, increased student representation on departmental committees and social events. Alison has taken the lead in organizing groups of fellow students to attend important student conferences, such as the Canadian Undergraduate Physics Conference, Atlantic Undergraduate Physics and Astronomy Conference and Canadian Conference for Undergraduate Women in Physics.

In addition to performing exceptionally well in her academic work, Alison was also a member of the women's basketball team at King's in 2018-2019 and 2019-2020. A good teammate and supportive of her fellow players, Alison was also one of the recipients of the Debra Deane and Robert Little Scholarship in both 2020 and 2023.

Alison has chosen a future path that combines her love for research and optics with her passion for the environment by pursuing solar cell research in her graduate studies in Physics at the University of Ottawa. We are so happy to celebrate Alison's outstanding achievements she has made during her time at King's.

It gives me great pleasure to present the King's Medal to

**Alison Clarke**