

PERSONAL STATEMENT

Pierre-Antoine Graham

MIT physics Ph.D.

Each time the frontier of physics moves, it takes more ingenuity to push it further. I deeply believe that we need all the minds humanity has to offer to get the best out of the challenging problems physics keeps revealing. As a member of the scientific community and the LGBTQ2+ community, part of my goals is to make science more accessible, inclusive and modify how it is seen to make more people engage in it.

My first effort to reach these goals took the form of outreach. After four participations at the Hydro-Québec science fair, I worked as a summer camp scientific demonstrator for four years. My curiosity towards astrophysics then brought me to an astronomical observatory where I prepared and presented material about cosmology and space exploration. These opportunities to share my growing passion with the general public lead me to value scientific communication deeply. This was reflected through my three participations and organization of outreach events at Université de Sherbrooke as a member of the diversity committee. Lately, I have been contributing to the organization of a seminar series for students of my program to share their interests. I plan to carry my desire for excellence in scientific communication to the impressive outreach programs at MIT notably to the Educational Studies Program.

I complemented my outreach experience by joining tutoring programs where I helped students from diverse backgrounds overcome their difficulties. Explaining physics concepts from high school to undergraduate level made me realize that teaching was as valuable for me as it was for the students I was helping. As a result of this experience, I look forward to rediscovering my undergraduate knowledge with teacher assistantship throughout my Ph.D.

At Perimeter Institute, I have experienced the full power of a diverse international scientific community. My classmates are exceptional physicist from 17 different countries. Learning about their unique experiences and challenges made me more aware of the international state of the physics community. While the program showed how welcoming and collaborative a physics community can be, it also made me want my privileged reality to be shared by every physics institution. In particular, I want to contribute and benefit from an environment that has good mental health resources, conferences about EDI issues and a diverse pool of students that can push my understanding of these issues even further. Every day, I grow from cultural exchange and collaborative problem solving where I give my all to embody the values of inclusivity and collaboration of the institute. My peers selected me to receive the Marsland Family PSI award highlighting my contribution to the learning environment of the program and alignment with the values of the institutes.

I look forward to new outreach opportunities and teacher assistantships to become a better educator and mentor for the next generation of physicists.

Sincerely,

Pierre-Antoine Graham