

Alexis Langlois-Rémillard
636 4^e Rang Sud, J2X 5V1
Saint-Jean-sur-Richelieu
Québec, Canada
☎ +1 (514) 432 7844
✉ alexis.langlois-remillard@umontreal.ca

Application PhD Researcher PRIMA
Universiteit Gent, Belgium

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Dear Professors Van der Jeugt and De Bie,

I am writing to apply for the PhD Researcher under the PRIMA project. After attending a presentation by Prof. De Bie on Racah algebras in Montréal Séminaire physique mathématique, I found his research very interesting and, following some reading, in an area sufficiently related to my current study to use the insight I gained. I am currently completing my master degree with Prof. Yvan Saint-Aubin at Université de Montréal. My research is in the representation theory of algebras, specifically a cellular algebras approach for the modules structure of boundary seam Temperley-Lieb algebras. Those algebras offer an algebraic framework for logarithmic minimal models in order to study Virasoro Kac modules via scaling limit.

My current objective is an academic career in mathematics and I believe this PhD program offers great opportunities for achieving that goal while providing interesting problems to tackle and a great research environment. This position would offer a great opportunity for me to broaden my knowledge on representation theory of Lie (super)algebras and on operator algebras. I worked on close enough subjects that I can understand the methods employed, but I would benefit from the additional light shed by different approaches.

I would really look forward to being part of the research team : I work well with others and I understand how to facilitate collaboration between distinct groups of researchers : I organized many events aimed at uniting diverse mathematical vision varying from national conferences to departmental seminars. Working in team is my main force as I love initiating and finishing projects with colleagues, assuming leadership role when needed and following the better person when I am not.

I plan on submitting my master's thesis December 1st 2018. However, I originally planned to submit in April 2019 at the end of my scholarship and use the extra time to prepare an article with the original results of my thesis. Knowing the difficulty of choosing one candidate between the competitive prospective students applying, I want you to know I am flexible regarding the starting time and will accommodate you if needed.

I would be elated to join you in this project, and you will find my detailed CV attached along my grades transcript. My letter of reference should reach you in a separate cover. I will gladly supply anything else you would need. Thank you for your time and consideration.

Yours faithfully,

Alexis Langlois-Rémillard