## **Motivation Letter for PhD Application**

Dear Dr. Peter Berta

I am writing this letter to express my strong interest in the Ph.D. position: "investigating four top quarks production in proton-proton collisions"

## About me \_\_\_\_

I graduated last year with a Master's degree in "high energy and computational physics" from Cadi Ayyad University in Morocco. Pursuing my Ph.D. with experts and doing research on the latest topics of physics is my childhood dream.

I feel comfortable processing several challenging things at once. This ability helps me to be successful in my study (First in my class of master degree) and acquire extra-curricular knowledge in the computer science field (about 5 years of experience with programming)

My correct research interest is in the area of machine learning in experimental particle physics

For more information about me please visit my website

## Why this thesis? \_\_\_\_\_

I think ijclab laboratory can help me with this ambition since it has a good academic reputation with access to formidable computational resources, also this thesis combine tow of my favorite field machine learning and particle physics and I can adapt quickly to new scenarios and computational challenges presented by this thesis, these new challenges, and thinking about innovative ways to tackle them are a great motivation for me.

## Why me \_\_\_\_

Besides my thorough theoretical knowledge got during my master in high energy and computational physics, I also possess strong numerical and data analysis skills obtained during multiple research projects, also I have a lot of experience in programming languages (Python and C++) and frameworks (ROOT, DaVinci..), and I have a strong desire for professional development. I believe that my diligence, my practical research experience, and organizing abilities, high enthusiasm, and interest in experimental particle physics are most conducive to make me an ideal candidate for this Ph.D.

I am available immediately to start an internship before the beginning of the PhD, and please find in my CV attached a list of referees you are welcome to contact for recommendations

I will gladly answer questions you may have and hope to hear from you soon.

Sincerely,