

# Motivation Letter for PhD Application

Dear Dr. Matthew Charles

I am writing this letter to express my strong interest in the Ph.D. position : "Recherche de nouvelle physique dans des désintégrations de mésons beaux en trois corps sans particule charmée avec l'expérience LHCb"

## About me

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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 data analysis in experimental particle physics

## Why this thesis?

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I think LPNHE can help me with this ambition since it has a strong LHCb group with access to formidable computational resources, also I can adapt quickly to new scenarios and computational challenges in the LHCb experiment now and after the upgrade, new challenges, and thinking about innovative ways to tackle them are a great motivation for me.

## Why me

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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.

After completing my Ph.D., I plan to pursue a postdoc likely in the area of applied new technologies like machine learning in data analysis of the LHCb experiment. Driven by a lifelong interest in experimental particle physics, I am keen to continue my education in this subject and to perform my own research which can contribute to the knowledge of the field.

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,

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