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ML4Q Research School
ML4Q | Matter and Light for Quantum Computing
77, Zülpicher Str., 50937 Köln, Germany

Dear Research School Committee,

My name is Gabriel Balarezo, and I am writing to you to express the reasons for my keen interest in being part of the Research Internship Programme at the ML4Q Research School.

Currently, I am enrolled in a Physics program at Yachay Tech University in Ecuador. As part of my academic curriculum, I have taken courses such as Quantum Mechanics, which have provided me with a solid understanding of quantum mechanics. Additionally, courses like Solid State Physics have given me a background in material science, understanding the properties of materials using computational tools. Due to my academic performance, I also had the opportunity to serve as a teaching and research assistant, where I conducted tutoring sessions, and did research as well. These roles not only allowed me to contribute to the academic environment by assisting fellow students but also significantly enhanced my research and social skills. Furthermore, my coursework in Computational Physics have deepened my knowledge in numerical programming using programming languages like Python; merging theoretical knowledge with practical applications in physics such as data processing, techniques for solving physical problems, and spectral analysis. I am also actively seeking for opportunities for continuous learning more about quantum computing by attending summer schools and using the tools at my disposal to further improve my knowledge in areas like quantum algorithms and quantum error correction. Therefore, your program represents a great opportunity to take part of leading research in the field of quantum computing, where I can both contribute with my knowledge, and work with leading researches.

My main motivation to apply to this programme is that I am interested in pursuing a career in quantum computing. I believe that this programme will provide me with the necessary tools to further improve my skills. I am also interested in the research topics that you are developing such as Topological Quantum Error Correction. I believe that these topics are of great importance for the development of quantum computing.

Finally, I would like to thank you for taking the time to consider my application. I am looking forward to hearing from you soon.

Sincerely,

Gabriel Balarezo
