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University of Barcelona  
Quantum Science and Technology  
Gran Via de les Corts Catalanes, 585  
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**Dear Sir or Madam,**

My name is Jaume Villasante Cánovas. I am currently carrying out the Bachelor's thesis "Spectroscopy with spatial modes of light" in ICFO with Dr. Juan P. Torres. In essence, I am studying how by means of techniques of Quantum Estimation Theory and the so-called spatial modes it is possible to know specific characteristics of distinct objects thanks to the analysis via parameter estimation of the reflected light.

From an early age I have been fascinated by science, as it has always been clear to me that it is the way to satisfy my thirst for curiosity. Science is continually seeking to provide answers to the unknowns of how the world works. The reason I chose the degree in Engineering Physics was precisely because I was delighted by the idea of combining the two branches that I was most passionate about: physics, the branch that studies how the universe works at a fundamental level, and engineering, applying knowledge to solve problems.

On the one hand, this master's degree offers the possibility of delving deeper into the physics that intrigues me the most, quantum physics, the best description of the world we have in a fundamental way. It is so exciting to know that everything I assumed I understood about reality is very likely not to be true. On the other hand, the knowledge of Quantum Theory in practical applications has an endless potential.

All this is exactly what the master's degree offers and the reason why I am extremely interested in joining the program. Since the syllabus of the master is very complete and covers all topics I will initially acquire all the essential key knowledge I need thanks to the Quantum Core part and then make the difficult choice of choosing the path I find most appealing among the offered opportunities. As far as the future is concerned, both developing a research career and going into industry seem to me to be both very exciting options. It is overwhelming the amount of possibilities that the master's degree offers you both in terms of research groups and companies available that it is difficult to choose. Although it is true that I was particularly interested in Quantum Computing, having seen all the potential attractive paths, I cannot rule out any option.

All in all, it is very clear to me that I want to dedicate my life to contribute to the quantum world and Quantum Science and Technology is the ideal opportunity to further develop my career at a prestigious university such as UB. I believe that my profile fits perfectly, including all the necessary background that such a demanding master's degree requires and I am extremely eager to expand my knowledge of such a fascinating field.

Finally, to complement my own merits, I would like to highlight my language skills. I have an advanced level of English and German and an intermediate level of Russian. I have not been able to stop learning languages. In a similar manner as science, languages help me understand and perceive the world from a different perspective.

Thank you for considering my application.

Yours sincerely,

Jaume Villasante Cánovas