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Dear Professor Amikam Levy,

My name is Sander Stambach, I got informed about your PhD position from my Professor Patrick Potts. I took my master's exam by Dr. James Wooten from IMB Zürich on the topic of quantum computing. After that I proceed my masters thesis by Professor Potts in quantum thermodynamics.

I found the implementation of energy storage in a flywheel for a quantum heat engine very interesting. I piqued my interest instantly, as it is the perfect opportunity to further my studies in the field of quantum computing after the completion of my master's degree. My objective has always been to become a physicist, which is why I did my bachelor's degree in physics at the University of Basel. Throughout my studies, I learned to code in Python, Fortran, Java, and other programming languages. During my master's studies, I focused on theoretical quantum physics. As I am especially interested in this field. In addition, I attended lectures about high-energy particle physics as well as quantum field theory. Moreover, I worked in Professor Pott's group on theoretical quantum thermodynamics. Finally, my master's thesis consisted of researching numerical simulations, where I focused on full counting statistics.

Now that I have completed my master's degree, I would like to further my studies in a PhD position. The Levy Research Group is especially appealing to me since I see your work as an essential contribution to the future of quantum computing, which I find particularly interesting. As a PhD. student, I would love to be part of the research development and to make significant

contributions to your work on quantum thermodynamics using my expertise in numerical and analytical skills, in quantum physics.

I am a strongly resilient researcher with a high-stress tolerance. During the last year of my master's programme, I participated in various humanitarian aid trips to the Ukrainian warzone. This experience taught me how to keep calm in stressful situations and how to look for the best solution while considering all circumstances and to be helpful in this situation.

I would like to thank you in advance for your consideration, and I look forward to meeting you in person to discuss the possibility of my appointment.

Yours sincerely,

Sander Stammbach