

Dear Dr. Emerson,

My name is Ivan Ogloblin, and I am currently enrolled in the Bachelor program at the Department of Mathematics and Computer Science at Saint Petersburg State University under the supervision of Sergei Tikhomirov, and expect to graduate in May 2023.

Due to the Russian invasion in Ukraine and my anti-war activity, I am not able to continue my studies in Russia, hence I am seeking opportunities to flee, for this reason I am writing to you.

Working title of my prospective research (I was hoping it to be my bachelor's thesis) is "Study of the Effect of Noise on Efficient Quantum Search Algorithms". We were trying to measure the effect of noise on the computational progress of a quantum search algorithm using simple noise models. I have attached main results of my project and my research proposal for your kind review. My research supervisor Dr. Tikhomirov kindly suggested I contact you since you worked on the effect of quantum noise as well. I am fascinated by your work on optimization of error-correction strategy and tests of underlying estimates of the FT threshold. I hope you might consider my proposal for potential supervision if you are accepting undergraduate students.

The following people can send letters of recommendation upon request, if necessary:

- 1) Tikhomirov Sergey Borisovich, INSTITUTO NACIONAL DE MATEMATICA PURA E APLICADA, sergey.tikhomirov@gmail.com
- 2) Ismagilov Niyaz Salavatovich, Gazpromneft-DS LLC, Ismagilov.NS@gazprom-neft.ru
- 3) Okhotin Alexander Sergeevich, SAINT PETERSBURG STATE UNIVERSITY, alexander.okhotin@utu.fi

I have also attached my CV and transcript(it is impersonal, I will get the official one this week).

I would like to thank you for taking the time to read this email, any advice or guidance from you would be greatly appreciated.

Yours faithfully,

Ivan Ogloblin