February 24, 2021

LETTER OF RECOMMENDATION FOR RAVIL MUSSABAYEV

I am very pleased to write in support of RAVIL MUSSABAYEV for the position he is applying for. I have known Ravil since September 2018. In the 2018–2019 academic year, Ravil took our three-quarter graduate Real Analysis sequence (Math 524/525/526) from me at the University of Washington.

In Math 524 (Autumn Quarter 2018), after a review of set theory and metric spaces, the main topics covered were general measure theory and integration theory, with a special emphasis on Lebesgue measure. Ravil's performance in Math 524 was very good. It was his first quarter in our Ph.D. program. He adjusted well to graduate study in this quarter, and learned the material very well. His course grade was 3.5 (highest possible is 4.0), translating to an A^-.

In Math 525 (Winter Quarter 2019), Ravil really came into his own. The main topics were general topological spaces and an introduction to functional analysis, including topological spaces, compact spaces, Banach spaces, Hilbert spaces, topological vector spaces, and L^p spaces. There were 12 students in the class, 8 math Ph.D. students, 2 math undergrads, and 2 Ph.D. students from other departments. Ravil's performance in Math 525 was superb. His final exam score was 77 out of 80. His homework score was 98.9%, second highest in the class. In total score, he ranked second highest in the class. His course grade was 4.0 (highest possible A).

In Math 526 (Spring Quarter 2019), Ravil's performance continued to be excellent. The main topics were differentiation and its relation to integration, signed measures, the Radon-Nikodym Theorem, representation of bounded linear functionals on $C_0(X)$ for locally compact Hausdorff spaces X, Fourier transforms, Fourier series, distributions, Sobolev spaces, and some applications. There were 13 students in the class, 7 math Ph.D. students, 4 math undergrads, and 2 Ph.D. students from other departments. In total score, he ranked third highest in the class. His course grade was 3.9 (highest possible is 4.0). translating to a solid A.

Ravil further demonstrated his mastery of the material he learned in our Real Analysis sequence by passing our challenging Ph.D. preliminary exam in Real Analysis in Septebmer 2019. His arguments are consistently clear and accurate. He is both dedicated to his studies and very well-organized.

I have had the pleasure of meeting with Ravil regularly on Zoom since the summer of 2020. We have discussed many aspects of his graduate studies. He clearly loves mathematics, but it also very interested in applications to related disciplines. I have been particularly impressed with his maturity. He has a better awareness of what it means to pursue a career in research than many of his peers. I believe that Ravil has the potential to become a leading researcher in any of the mathematical sciences. In addition, he is very personable and would make an excellent collaborator.

RAVIL MUSSABAYEV is an excellent student. He is a talented mathematician with the ability and dedication to make important contributions in his research career in mathematics and its applications. He is also very friendly and genuine. I am pleased to recommend Ravil very highly with enthusiasm for the position he is applying for.

Sincerely,

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