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Evan Randles
Department of Mathematics and Statistics
Colby College
5834 Mayflower Hill
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Dear Professor Randles,

My name is Huan Bui '21, double major in Physics and Mathematics and minor in Statistics. I am writing to apply for the position of Student Research Assistant for summer 2021 to work on "The analysis of convolution powers of complex-valued functions on \mathbb{Z}^d ." In this period of great uncertainties for international students like myself as a result of Covid-19, I view this position as immensely important, since it can provide me with summer housing and finance my transition from the final months at Colby to graduate school.

I believe that I am sufficiently qualified for the position. Regarding my technical abilities, I am highly competent at \TeX , having been using this typesetting system to write more than 1000 pages of expository work in physics and mathematics as well as conference posters and presentations (all of which are available on my personal website, linked above). In addition, I am sufficiently well-versed in Python and MATLAB and am confident in my ability to handle any computational task that this project may require.

Regarding my mathematical qualifications, I have taken and thoroughly enjoyed Real Analysis, Complex Analysis, Different Equations, and two Probability Theory modules at Colby, which give me a strong foundation to work on this project. In addition, I am proficient in proof writing, having taken heavily proof-based classes such as Advanced Linear Algebra, Abstract Algebra, and Topics in Abstract Algebra and earned A+'s in all. Most importantly, I have been working with you on this topic for more than a calendar year, during which time we obtained new results, reported our findings at the 2021 Joint Mathematics Meetings, and co-wrote "A generalized polar-coordinate integration formula with applications to the study of convolution powers of complex-valued functions on \mathbb{Z}^d ," which we recently submitted to the Journal of Fourier Analysis and Applications for publication.

My experience and past involvement in your research make me uniquely qualified for this project. Having worked with you not only in research but also in the academic setting as a TA for various classes of yours, I have no doubt that we would have another fantastically productive collaboration if I were given the research assistant position. Thank you for your time and consideration of my application. I look forward to hearing back from you.

Sincerely,

Huan Q. Bui