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ATTN: Search Committee
686 Cherry St., Skiles Building
School of Mathematics
Georgia Institute of Technology
Atlanta, GA 30332-0160

Dear Members of the Search Committee,

I am applying for the Hale Assistant Professorship at the Georgia Institute of Technology Department of Mathematics. I hold a Ph.D. in mathematics from the University of Pittsburgh advised by G. Bard Ermentrout, and now hold a postdoctoral position at Brandeis University advised by Thomas G. Fai.

I am an ambitious applied mathematician who positions himself at the forefront of multidisciplinary discoveries, including mathematics and biology. I developed my mathematical repertoire at Pittsburgh by applying dynamical systems theory to reduce the dimensionality of famous neural models, aiding in novel insights into these systems. My research resulted in winning the prestigious Andrew Mellon Predoctoral Fellowship, awarded to doctoral students of exceptional promise and ability. I was the first math-bio student at the University of Pittsburgh to receive this award.

The quality of my research has continued to improve as a postdoc. At the University of Pennsylvania, I collaborated closely with neuroscientists and introduced ground-breaking insights and models for data produced by the world's leading auditory labs. At Brandeis, I have continued to develop my abilities as an independent mathematician while contributing to multiple fields, including coupled oscillators and molecular motor dynamics. Much of my recent work is collaborative but largely independent.

Georgia Institute of Technology features top researchers in mathematical biology (including Leonid Bunimovich and Rachel Kuske), but representation in neuroscience is less salient. My skill set will bolster existing faculty's work through collaborations, and complement their work through independent research. I offer a decade's worth of experience in problems of oscillator synchrony using dynamical systems and bifurcation theory, and firmly believe that my presence will bolster Georgia Institute of Technology's reputation reputation in applied mathematics.

I am committed to providing high-quality and equal education for all my students, as evidenced by my teaching evaluations. My teaching portfolio boasts six years of teaching at different capacities (lectures, recitations, grading), at different levels (calculus sequence, differential equations, linear algebra, and discrete math). As a doctoral student, my students shortlisted me for the Elizabeth Baranger teaching award, the most prestigious teaching award at the University of Pittsburgh. I have also served as a guest lecturer for underprivileged Bangladeshi children at Moder Patshala and the Free Library of Philadelphia.

As part of my application I include a curriculum vitae, research statement, and teaching statement. Please request additional details as needed, and I look forward to our correspondence.

Sincerely, Youngmin Park, Ph.D.