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Search Committee  
Yale University

Dear Search Committee Members,

I am applying for the position of the Gibbs Assistant Professorship at the Yale University Department of Mathematics. I completed a PhD in mathematics at the University of Pittsburgh under the supervision of G. Bard Ermentrout, and I am now a postdoc at the University of Pennsylvania under the supervision of Maria N. Geffen.

I am an ambitious applied mathematician who positions himself at the forefront of discoveries in both mathematics and the physical sciences. At Pittsburgh, I developed my mathematical repertoire by applying dynamical systems theory to reduce the dimensionality of famous neural models, aiding in novel insights into these systems. At the University of Pennsylvania, I introduce ground-breaking insights and models for data produced by one of the world's leading auditory labs.

Yale offers an excellent academic environment in which I can continue pursuing my independent research at the interface of dynamical systems and physical systems. For instance, **John S. Wettlaufer's** extensive work on dynamical systems applied to climate science aligns perfectly with my goals to pivot into new areas of science with my dynamical systems toolbox.

Under Bard's supervision I wrote three papers spanning diverse topics from single neurons (coupled oscillators) to the population-level (neural field models). We also published a pedagogical book chapter in computational neuroscience. I maintained collaborations from my masters institution, and published a fourth journal paper in dynamical systems theory. My research resulted in winning the prestigious Andrew Mellon Predoctoral Fellowship at the University of Pittsburgh, which is awarded to doctoral students of exceptional promise and ability. I was the first math-bio student at Pitt to receive this award.

My teaching portfolio boasts four years of teaching at different capacities (lectures, recitations, grading), at different levels (calculus sequence, differential equations, linear algebra, and discrete math), for three terms per year (Spring, Summer, and Fall). My teaching evaluations are consistently strong. As a result of my teaching I was shortlisted for the Elizabeth Baranger teaching award, the most prestigious teaching award at the University of Pittsburgh.

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, PhD