



Youngmin Park, PhD  
*Department of Otorhinolaryngology*  
*University of Pennsylvania*  
*3400 Spruce St. 5 Ravdin*  
*Philadelphia, PA 19104*

November 16, 2018

Search Committee  
Department of Mathematical Sciences  
P.O. Box 172400  
Bozeman, MT 59717-2400

Dear Search Committee Members,

I am applying for both the position of Assistant Professor in the Montana State University Department of Mathematical Sciences. 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 biology. 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.

Montana State offers an excellent academic environment for me to continue teaching at the highest standards, and continue pursuing my independent research at the interface of dynamical systems and physical systems. The existing faculty, such as **Tomas Gedeon** have made extensive contributions to the field of mathematical neuroscience, which aligns perfectly with my research goals. Our shared enthusiasm offers great potential for interdisciplinary collaborations.

I wrote three papers spanning diverse topics from single neurons (coupled oscillators) to the population-level (neural field models) under the supervision of my doctoral advisor. 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