Brandeis
U N I V E R S I T Y

Youngmin Park, Ph.D.
Department of Mathematics
Brandeis University
415 South Street
Goldsmith 218, Mailstop 050
Waltham, MA 02453
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Hiring Committee
700 College Street
Beloit, WI 53511

Dear Members of the Hiring Committee,

I am applying for the position of Assistant Professor at Beloit College Department of Mathematics and Computer Science. 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 specialize in dynamical systems and bifurcation theory**, with a focus on neuroscience and cell physiology.

My doctoral research in dimension reduction resulted in winning the prestigious **Andrew Mellon Predoctoral Fellowship**, awarded to doctoral students of exceptional promise and ability. I was the first math-bio doctoral student at the University of Pittsburgh to receive this award. My research ability has matured through my postdocs. At the University of Pennsylvania, I collaborated closely with neuroscientists and published ground-breaking models to explain data produced by the world's leading auditory labs. At Brandeis, I have continued to develop my abilities as an independent mathematician while publishing in multiple fields, including coupled oscillators and molecular motor dynamics. Much of my recent work is collaborative but largely independent.

Beloit College features strong researchers who include natural sciences in their work including **Eyad Haj Said**, but representation in mathematical neuroscience is less salient. My skill set will augment their work through collaborations, and complement their work through independent research. I offer a decade's worth of experience in solving problems of oscillator synchrony using dynamical systems and bifurcation theory, and firmly believe that my presence will bolster Beloit College's reputation in applied mathematics.

I am also committed to providing high-quality and equal education for all my students, as evidenced by my teaching evaluations. My teaching portfolio boasts eight years of teaching at different capacities (lectures, recitations, grading), at different levels (calculus sequence, differential equations, linear algebra, and discrete math), and at different institutions (Oberlin College, Case Western Reserve University, University of Pittsburgh, and Brandeis University). 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 the Free Library of Philadelphia.

I strongly believe in the principle that learning is best accomplished with context and practice. My students do not learn in a vacuum, but instead learn concepts alongside the human triumph and defeat behind many concepts we take for granted today, such as matrix notation and Euclid's fifth postulate. Students at Beloit College will greatly benefit from this approach, and in turn, will drive me towards excellent instruction.

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., Postdoctoral Fellow