
January 13, 2017

497 Mine Road
Lebanon, PA 17042

Search Committee
Department of Mathematics
Franklin & Marshall College
Lancaster, PA 17604

Dear Search Committee,

I am writing to apply for the Visiting Assistant Professor position in Mathematics at Franklin & Marshall College. My general areas of research interest include structural and extremal graph theory, machine learning and philosophical logic. In particular, I am drawn to problems at intersections of computer science, math and philosophy. Interdisciplinarity is a natural extension of my experience in industry and my academic and pedagogical collaborations with artists and philosophers.

I am able to teach courses in calculus, differential equations, linear algebra, abstract algebra, analysis, topology and anything in discrete math or computer science.

My graduate work focused on graph coloring and partitioning. One of my favorite results from this work is a simultaneous generalization of Hall's marriage theorem and Vizing's edge coloring theorem in terms of winning strategies in a certain two-player game. In philosophy, I made progress on determining which relations of reference afford the structure necessary to support the infinite semantic paradoxes. My research appears in numerous journals including *Journal of Combinatorial Theory Series B*, *Discrete Mathematics*, *Analysis*, *Journal of Philosophical Logic* and *Journal of Pure and Applied Algebra*.

I would look forward to bringing my experience to an inspiring liberal arts community that values rigorous scholarship and collaboration with undergraduate students. In particular, helping to prepare students for the putnam exam would be a delight. I am somewhat familiar with the college's *Connections* curriculum and have a few ideas to propose. One of my favourites is a class on cryptography and its great impact on the course of history. In my primary research area of graph coloring, there are many open problems that would be amenable to collaborative work with undergraduate students, and likely the opportunity for co-authored articles.

Enclosed are my curriculum vitae, teaching statement and transcripts. All of my publications and presentations are available at:

<https://sites.google.com/site/landonravern/>

Please let me know if there are any other materials or information that will assist you in processing my application.

Thank you for your consideration. I look forward to hearing from you.

Sincerely,

Landon Rabern
