

640 Ferry Street
Lafayette, Indiana 47901
USA

To whom it may concern,

I am writing to apply for the position of postdoctoral researcher in mathematics at the University of Oklahoma (Mathjobs Job ID: #21448.)

I am a Ph.D. candidate at Purdue University, under the direction of D.B. McReynolds. I expect to complete my degree by May of 2023. My research interests include geometry and topology, spectral theory, number theory, representation theory, harmonic analysis, and interactions thereof. My thesis work concerns an absolute spectral rigidity result, which applies to a large class of arithmetic hyperbolic 2 and 3 manifolds. One application of this theorem proves that all principal congruence Hurwitz surfaces are spectrally rigid. I have also co-authored a paper in which we construct large collections of algebraic and differential geometric objects which are indistinguishable by means of various invariants. My research interests are closely aligned with those of Professor Nicholas Miller. He and I attended Purdue simultaneously for a period. In that time and since, Professor Miller has served as a mentor to me.

I consider teaching to be an essential role of the mathematician, and am committed to fostering a safe, inclusive, and open environment for students.

Please find my curriculum vitae and research and teaching statements attached. Letters in support of my application, written by D.B. McReynolds, M. Stover, J. LaFont, A. Reid, and J. Chen, will be submitted through the forms on mathjobs.com. Please contact me for any further information.

Sincerely,

Justin Katz
Mathematics Department
Purdue University
1610 Purdue Mall
West Lafayette, IN 47907
(219) 210-9452
jukatz93@gmail.com