

Dear Members of the Selection Committee for Postdoctoral Research Fellowship at Carnegie Mellon University,

I am currently a PhD student in Mathematics at the University of Wisconsin-Madison, and expect to graduate in the coming spring. My Research Interests lie primarily in harmonic analysis, spectral geometry, geometric measure theory, and the study of nonlinear wave equations. My thesis problem focuses on studying spectral multipliers on compact manifolds using methods of Fourier integral operators, which I am working on under the supervision of Professor Andreas Seeger.

If awarded your Postdoctoral Fellowship, I hope to work with Professor Theresa Anderson. My work on L^p bounds for multipliers is closely related to problems about spherical means, which Professor Anderson has done much work in both the continuous and discrete setting. In addition, Professor Anderson has also done much work on similar problems in multilinear, and I am also interested in seeing whether such techniques from multilinear analysis can be used to extend the results I obtained during my PhD thesis. Collaborating with Dr. Anderson at Carnegie Mellon would thus greatly enhance my future research prospects.

Thank you for your consideration,

Jacob Denson