UCLA Mathematics Department Box 951555 Los Angeles, CA 90095 jaclynlang@math.ucla.edu 303-587-4174

November 27, 2015

Search Committee
Department of Mathematics
University of California, San Diego
9500 Gilman Drive MC0112
La Jolla, CA 92093

## To the Search Committee:

I am a Ph.D. student in algebraic number theory at UCLA studying with Haruzo Hida. I will be graduating in June 2016 and would like to apply for a Postdoctoral Scholar position beginning in the Fall of 2016, as posted on the MathJobs website.

In my thesis, I study images of Galois representation associated to Hida families of modular forms. I prove that, in the non-CM case, the images of such Galois representations are appropriately large, an analogue of a classical theorem by Ribet and Momose. One of the key steps is a lifting theorem, which I prove using a combination of deformation theory and automorphic techniques. For more detailed information, please see my research statement. I would be excited to work with the number theorists at UCSD, particularly Christian Popescu and Kiran Kedlaya.

My application consists of of the AMS cover sheet, my curriculum vitae, a list of publications, my research and teaching statements, and a statement concerning my contributions to diversity. In addition, it includes letters of reference from Haruzo Hida (my advisor), Jacques Tilouine, and Chandrashekhar Khare. Please let me know if any of these items is not accessible or if I can provide any further information. Thank you for your consideration.

Sincerely,

Jaclyn Lang

Jaclyn Lang