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

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Department of Mathematics
Imperial College London
South Kensington Campus
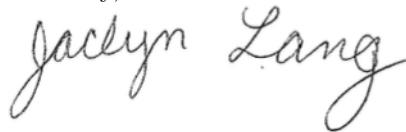London SW7 2AZ
United Kingdom

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 Research Associate position in Number Theory 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 Imperial, particularly Kevin Buzzard and Toby Gee.

My application consists of the Imperial Research Application, my research statement, and my CV, which contains a list of my publications. In addition, please feel free to contact my references: 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