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November 7, 2015

Postdoctoral Fellowships The Fields Institute 222 College St, 2nd Floor Toronto, Ontario M5T 3J1 CANADA

To the Postdoctoral Fellowship 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 Fields-Ontario Fellowship 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 the University of Toronto, particularly Florian Herzig.

My application consists of the AMS cover sheet, my curriculum vitae, a list of publications, and my research statement. 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

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