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Fondation Sciences Mathématiques de Paris
11, rue Pierre et Marie Curie
75231F
Paris Cedex 05
France

To the Steering Committee and the Scientific Council:


I am applying for a Postdoctoral Position with Jacques Tilouine at Laboratoire Analyse, Géométrie et Applications (LAGA) at Université Paris 13 for one or two years beginning in October 2016.

In my Ph.D. thesis I study images of Galois representations associated to (ordinary) Hida families of modular forms and prove a qualitative analogue of a classical result of Ribet and Momose. Tilouine, his graduate student Andrea Conti, and their collaborator Iovita built on my thesis to prove an analogous result in the non-ordinary setting. Furthermore, Tilouine and Hida have investigated similar questions for p -adic families of Siegel modular forms. Thus Tilouine is the foremost senior number theorist currently working on questions about images of p -adic families of Galois representations. A Postdoctoral Position with Tilouine will allow me to learn many of the tools that he has developed in the aforementioned projects as well as work with him to develop new tools.

I will further benefit from the vibrant number theory community in Paris. There are frequent seminars and workshops with experts in my field at Université Paris-Sud, Université Diderot, and Université Paris 13. Benoît Stroh (Université Paris 13) and Gaëtan Chenevier (Université Paris-Sud) are experts on Galois representations and will be invaluable resources, exposing me to additional new techniques and questions in the field. I will be an active participant in the Paris number theory community by giving talks, organizing conferences, and engaging in mathematical discussions and collaborations with other members.

A Postdoctoral Position at LAGA with Jacques Tilouine is my first choice for a job after I complete my Ph.D. in June 2016. Thank you for your time and consideration.

Sincerely,

A handwritten signature in cursive script that reads "Jaclyn Lang". The signature is written in dark ink and is positioned below the word "Sincerely,".

Jaclyn Lang