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William A. Stein
2041 Francisco Street, #14
Berkeley, CA 94709
November 12, 1999

Dear Application Committee:

I wish to apply for a [job] My application, curriculum vitae, list of abstracts, and statement of future research plans are enclosed. I have arranged for letters of recommendation from K. Buzzard, R. Coleman, H. Lenstra, B. Mazur, L. Merel, and K. Ribet to be sent separately.

I am a graduate student at the University of California at Berkeley and expect to receive my Ph.D. degree in May 2000 from the Department of Mathematics. Under the guidance of Professor Hendrik W. Lenstra, I am currently writing my dissertation which is entitled *Explicit approaches to modular abelian varieties*. My interests are in the areas of number theory, modular forms, special values of L-functions, Galois representations, and algorithms. I have had frequent conversations with [...].

In my dissertation work, I develop methods for explicitly working with modular forms and abelian varieties, and then apply my results to study Mazur's notion of visibility of Shafarevich-Tate groups in connection with the Birch and Swinnerton-Dyer conjecture. In addition, I give new examples of modular icosahedral Galois representations, and have developed a package of modular forms software.

I have four years of teaching experience, and have given many seminar talks. I have taught three courses in the areas of Discrete Mathematics and College Algebra, and served as a teaching assistant for Calculus and Linear Algebra courses as well as for a graduate level course at the IAS/Park City conference. I wrote educational MATLAB software as part of an NSF sponsored curriculum development effort.

I am very committed to pursuing a research career in academia, and look forward to hearing from you regarding my application. If you have any further questions, please send email to was@math.berkeley.edu or call me at 510-883-9938. Thank you for your time and consideration.

Sincerely,

William A. Stein