Mathematics Department
Columbia University
New York, NY 10027
(609) 933-5808
http://math.columbia.edu/~belias/
belias@math.columbia.edu
November 29, 2010

Duke University, Department of Mathematics

Dear Committee Members,

I am writing to apply for a Simons Postdoctoral Fellowship or an Assistant Research Professorship. I am currently a graduate student at Columbia University, under the supervision of Mikhail Khovanov. I should be receiving a Ph. D. in May 2011.

My research interests focus primarily on geometric representation theory and categorification. In my work so far, I have studied algebras of natural transformations between functors which categorify Hecke algebras and quantum groups. This topic has connections with other fields as well, which include knot theory and algebraic geometry. I believe these interests would match well with those of some of your faculty.

My teaching experience covers both graduate and undergraduate level classes. For two years I was a teaching assistant for a graduate course on representation theory. I have also taught a summer course on differential equations, been a teaching assistant for multivariable calculus, and supervised an advanced undergraduate seminar on Weyl groups and flag varieties. In addition, I have spent time tutoring, both in the Columbia help-room and independently.

I have arranged for letters of recommendation concerning my research from M. Khovanov, A. Kleshchev, A. Beliakova, and R. Rouquier. I also have a teaching recommendation from A. Lauda. These should have been submitted via MathJobs.org, along with my CV, teaching statement, and research statement. All publications and preprints should be available from my website, http://math.columbia.edu/~belias/publications/. If you have any questions or want any additional materials, please do not hesitate to contact me.

Thank you for your time and consideration,

Ben Elias