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Professor James Musser, Chair
Department of Physics
Indiana University
727 E. Third Street
Bloomington, IN 47405-7105

Dear Professor Musser:

I am pleased to write to you in support Jason deJoannis's application. As a member of his thesis committee, I had ongoing interactions with him over the last two years of his stay at UF. I think Jason is a very capable researcher, clearly one of our best students, and I encouraged him to think about an academic career.

Jason's thesis work was directed towards lattice Monte-Carlo simulations of polymer absorption. He validated the deGennes scaling for high MWt. chains and compared his data with mean-field theories. In doing this he found some potentially important modifications to the configurational-bias Monte-Carlo method of Siepman and Frenkel, which enabled very long chains to be simulated (up to 10,000 monomers). I was somewhat skeptical of the theoretical underpinning of one of these methods (despite the excellent numerical results) and Jason realized that he needs to find a sounder theoretical base for this idea. Nevertheless, I was impressed with his willingness to listen to criticism and his ability to respond with new theoretical ideas and numerical validations. In my opinion this shows the combination of scholarship and determination that is necessary to succeed in research. He also adapted a methodology developed by Rajagopalan and Jimenez to calculate the thermodynamic force exerted by a polymer chain confined between two walls. It's important to point out that Jason's thesis was largely self-directed. As you may know, his adviser Ioannis Bitsanis moved back to Crete not long after Jason graduated, and even prior to that he spent much of time there. Thus most of their communication was by email and telephone. Nevertheless, Jason took the initiative in undertaking new projects and carried them through. During his graduate studies he showed a mature attitude, worked hard, and paid careful attention to the literature; I think he will have a very good academic career.

I think Jason will make an excellent teacher, at both the undergraduate and graduate level. His talks are characterized by careful preparation and clear presentation, which should carry over well in the classroom. He taught our beginning thermodynamics class one summer and my understanding is that he did an excellent job, although he was sometimes a little severe in his assessment of the students. Overall, I think Jason has the intellectual and personal qualities to be a productive and congenial member of your department, and I recommend him highly to you.

Sincerely,

Tony Ladd

Anthony J.C. Ladd
Professor