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To whom it may concern:

It is a pleasure to provide you with a reference for Professor Peter Kleban. I have started noticing Professor Kleban's work over the last six years and have known him personally for the last four years. Currently I have an active ongoing collaboration with him, with one paper published and another one in preparation. During the last two years, we have met three times in London and once at a conference. I have also been external examiner for one of his students' PhD thesis. I feel therefore well qualified to judge his current research interests.

Knowing Professor Kleban's background as a "true Physicist", I have been particulary impressed by his ability to work well with Mathematicians. He manages to find unique viewpoints for problems, which in turn leads to novel understanding. One paper to prove this point is his work with Don Zagier on modular properties occurring in crossing probabilities in percolation problems.

Our joint project on Farey fraction spin chains explores very much a field in which ideas from both number theory and dynamical systems play a role in deepening understanding of a statistical mechanical system. Conversely, there are hints of deep connections to the modular group, Maas wave forms, and the like; for instance, the Lewis functional equation has appeared in our work in a way that has not yet been fully understood.

As Professor Kleban's interests are very much at the crossroads of Statistical Physics, Number Theory, and Dynamical Systems, a sabbatical stay at the School of Mathematics at the IAS would be highly beneficial, especially as this would enable deeper discussions with both Tom Spencer and Bob Langlands.

I therefore fully support Professor Kleban's application to the IAS.

Sincerely yours,

Thomas Prellberg