

Bicomplexity Faculty Search
c/o Theresa Dawson,
Department of Physics
Indiana University
Swain West 117
727 East 3rd Street

Dear Professor Dawson,

Re: Recommendation letter for Dr. E. Hershkovitz

My acquaintance with Dr. Eli Hershkovitz started when he joined my group as a PhD student. During his graduate studies he worked on a number of projects, studying the dynamics of dissipative systems. The highlights of his PhD thesis include a study of equilibration and the lack of it in systems of coupled oscillators, a multidimensional theory of activated rate processes and a new Runge Kutta numerical integration method for Langevin equations.

The multidimensional theory of activated rate processes was a really tough problem, which Eli handled admirably. The results are published in two papers, the last one in J. Chem. Phys. is almost a treatise, but we deemed it more useful for the interested reader to bring all the results in one paper rather than dividing it up. Interestingly, after leaving for a postdoctoral position in France, he came up with a much better solution to the multidimensional problem, a solution based on bringing together his expertise on nonlinear dynamics and the dynamics of dissipative systems.

His creativity is further exemplified by his work on a new numerical integrator for dissipative systems. This is work that he carried out completely on his own and was published as a paper in which he is the sole author. The efficacy of this integrator is high, it enabled us to study upon a short visit of Eli's to Israel, the turnover dynamics of bridged systems. In fact, I believe that it is the best numerical integrator available today for Langevin equations.

Eli has matured into an independent scientist whose high quality of research has been recognized by his peers. Although I am not an expert on bioinformatics, it is my understanding is that his work on bioinformatics, especially that having to do with RNA and writing up algorithms for unraveling structure has received much attention and credit in the field.

Eli is a highly intelligent, motivated and reliable scientist. He is knowledgeable in broad areas of physics, - a well rounded theoretician! As is also evident from his research proposal he chooses his problems with care. He certainly has the maturity, experience, know how and breadth for building up a first class research group. very personable, everyone gets along well with him. In simple terms, Eli has proven his ability to produce first class science, I warmly recommend his for an academic position which will enable him to further pursue his scientific interests.

Sincerely yours,

Eli Pollak

Sam and Ayala Zacks Professorial Chair
Chemical Physics Department
Weizmann Institute of Science
76100 Rehovot, Israel
Tel. +972 8 9342307
Fax +972 8 9344123
email: eli.pollak@weizmann.ac.il
webpage:
<http://www.weizmann.ac.il/chemphys/pollak/>