



Biocomplexity Faculty Search Committee
c/o Prof. Rob de Ruyter van Steveninck
Department of Physics
Indiana University
Swain Hall West 117
Bloomington IN, 47405-7105

December 20, 2004

Dear Professor de Ruyter van Steveninck:

This is a letter of recommendation for Dr. Alexander Umantsev, who has applied for the faculty position in your department. Dr. Umantsev was educated at the Moscow Institute of Physics and Technology, probably the best Russian school of physics. I have known Dr. Umantsev for many years, and have had numerous discussions with him on a variety of topics related to defects in ordered media, dynamics of phase transitions, biophysics, etc. His grasp of analytical methods and computer modeling techniques is remarkable. A few of his recent results are worth mentioning here: formation of new phases in nanomaterials, prediction of thermal waves in phase transitions of the second order, analysis of the morphology of biopolymers.

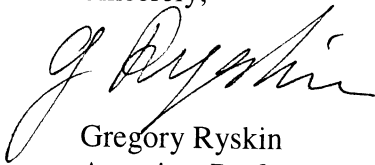
I have come to value Alex's judgment very much and formed a very high opinion about his scientific potential. I was especially impressed by the ease with which he, a physicist by training and outlook, collaborated with representatives of two very different scientific communities: Applied Mathematics (S. H. Davis) and Materials Science (G. B. Olson). The cultures of these communities are vastly different, and very few individuals have been able to "speak the language" of both. Now, it is a well-known fact that advances in science usually come about when a gap between two specialized branches is bridged, and I feel that Dr. Umantsev has positioned himself extremely advantageously in this respect. Thus, while not aspiring to predict the future, I do expect him to make great strides scientifically within the next decade or so, and to be quite successful in obtaining funds for research.

I should also mention that while Dr. Umantsev is a hard worker, and can be characterized as rather aggressive in his scientific pursuits, he is, at the same time, a well-mannered, tactful individual, who easily communicates with others and will become a good "citizen" of the department.

Most importantly, I have heard Dr. Umantsev give lectures and seminar presentations, and found him to be a clear and engaging speaker, capable of rendering some very complicated matters understandable for students. This being the most valuable skill for a teacher, I have no doubt that Dr. Umantsev will do an excellent job in your department.

On the whole, I highly recommend Dr. Umantsev for the faculty position in your department.

Sincerely,

A handwritten signature in cursive script, appearing to read "G. Ryskin".

Gregory Ryskin
Associate Professor
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