APPENDIX B

Citation and Response of
2004 O. Max Gardner Award Recipient
BRANISLAV VLAHOVIC

Citation:

Combining innovative and productive research, and work with minority undergraduate students, BRANISLAV VLAHOVIC, Professor of Physics at North Carolina Central University, has clearly contributed to the science, education, and welfare of the human race.

Dr. Vlahovic is recognized for his work in nuclear physics, semiconductor physics, and nanotechnology. His colleagues describe him as a very talented scientist, distinguished by his versatility. His research spans theoretical calculations to model nuclear forces as well as more applied research in quantum dots and thin film deposition, amelioration of the structure of amorphous silicon, and charge transport under thermal stress in quantum dots and thin films.

The polarimeter for high-energy photons, designed and built by Dr. Vlahovic and his team, is a breakthrough in the field of experimental nuclear and particle physics. It makes possible an entire new class of experiments with high energy linearly polarized photons which will allow testing of theoretical models to further the understanding of nuclear forces, nuclear matter, nature, and the world that surrounds us. His work in nuclear computational physics resulted in the solution to a long-standing problem in nuclear low energy physics, by a successful calculation of proton deuteron breakup above threshold with the inclusion of Coulomb force.

All of this scientific accomplishment merits recognition, yet it is also important to chronicle his tireless efforts to provide encouragement, support, and unsurpassed training and opportunities in science and technology for minority undergraduate students. Benefiting from Dr. Vlahovic's leadership, from 1999 to the year 2001 the NCCU physics department graduated an average of six physics majors per year, which represents 50% of all minority undergraduate physics majors in the University of North Carolina system during that time period. These students are now enrolled in graduate programs at Cornell University, Georgia Institute of Technology, Duke University, North Carolina State University, and the University of North Carolina at Chapel Hill; and two have gone on to receive Ph.D. degrees, one from Hampton University and the other from Harvard University. That minority students are seeking and gaining entry into graduate programs of this caliber is a testimony to his impact. Dr. Vlahovic

has brought to the North Carolina Central University Physics Department an educational and research experience comparable with major universities across the country.

Recognizing his enthusiasm for science and discovery, and his generous and encouraging nature that supports and propels undergraduate students, the Board of Governors of The University of North Carolina is honored to name BRANISLAV VLAHOVIC, Professor of Physics at North Carolina Central University, as a recipient of the 2004 Oliver Max Gardner Award.

Response:

I would like to first thank you for all of these nice comments and the nice piece produced by UNC TV. In addition, I would like to thank the members of the Gardner family, members of the Board of Governors, relatives, guests, and all of my collaborators who helped me make this happen. Especially, I would like to thank my family for their encouragement and understanding of the importance of my work. Finally, I would like to thank my parents for supporting me during my education and for evolving in me a strong love for science.

During my childhood my parents continuously emphasized the beauty and the power of science. My father was a mechanical engineer and professor at the university.
My mother holds a degree in electrical engineering and also has a great love for mathematics. Through everyday discussion in our house, I learned early in life that only science can give answers about the world around us, as well as about the universe. They always emphasized that being a scientist may not make me rich, but that it will certainly make my life interesting, exciting, and will give me a fulfillment which cannot be replaced by wealth. All of these years, I have never regretted being a physicist and today I can honestly say that physics is my life calling, and I hope that my daughter will continue the family legacy of love of science.

I have been privileged to work on many important research projects from nuclear physics to material science, both theoretically and experimentally. This gave me a unique opportunity to see the world from subatomic to macroscopic levels. In nuclear physics, the polarimeter that my group developed will give scientists a new tool to perform more controlled experiments and discover new relations between nucleons and gluons. New classes of experiments will be possible which may, in the future, result in discoveries which will be beneficial for humanity. The same is true for the computational few body rigorous calculations. In material science and nanotechnology, obtained results carry a potential industrial interest. Again, I would like to stress

that these are not just my accomplishments. Many collaborators among my peers, graduate and undergraduate students, made significant contributions to these research projects.

But more than the research results, my students are my inspiration. Many of them come from disadvantaged background; nevertheless they are determined to get a college degree. They struggle to manage their academic responsibilities while working full time jobs. It is a privilege to see them make the transition from insecure freshman, who do not quite know what physics is, to graduating seniors presenting research at the national conferences. If, through supporting them in their research endeavors, I made their path to graduate school and a successful career a little bit easier, this is my greatest accomplishment.

I feel fortunate that I have been working at NCCU, which provided the necessary environment for my research. Chancellor Ammons, Provost Reuben, former and present Deans of Arts and Sciences, Dr. Johnson and Dr. Moss, Dr. Carver, Ms. Fuse-Hall, and all other faculty members have been outstanding in their support of my work.

I would like to ensure you that this Oliver Max Gardner Award will further stimulate my research and my teaching. Acknowledgment like this helps my university, my students and me to realize that our work is important and appreciated. I will continue to search for answers to unanswered questions. I truly hope that I will persuade my daughter and my students to join me in this lifetime adventure.