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TO: Dr. Michael Carini, Interim Department Chair

FROM: Professors Doug Harper (chair), Gordon Emslie, Richard Gelderman, Charles McGruder, Wieb van der Meer

RE: Vladimir Dobrokhotov Promotion to Professor

DATE: October 18, 2016

The five Professors of the Department of Physics and Astronomy unanimously endorse Dr. Vladimir Dobrokhotov's application for promotion to Professor effective Fall 2017. Dr. Dobrokhotov has made contributions in teaching, research, and service that clearly justify promotion to the rank of Professor. This letter provides a summary of our review, which was based upon Dr. Dobrokhotov's packet of documented progress since his promotion to Associate Professor in 2012.

The committee particularly commends Dr. Dobrokhotov for the creative new vision that he has brought to the Applied Physics Institute (API) research program since taking on the directorship of that institute. His research, which focuses on electrical characterization of nanoscale systems for use in sensor applications, represents a new branding of the work at the API that is unique and distinct from that of previous API directors. He has been extraordinarily successful in supporting this program with external funding and in disseminating the results of the work in scholarly publications. His research is accessible to undergraduate students in physics and engineering and he has attracted numerous students to participate in his research program.

Dr. Dobrokhotov has taught a broad range of courses for the department and has received consistently positive teaching reviews from students. Although his increased emphasis on research supported by external contracts and grants has somewhat diminished the *quantity* of his teaching, he continues to be willing to teach, and teach well, whatever is asked of him. In addition, he has developed two new courses that support the biophysics minor (PHYS 379, Nanotechnology in Biophysics and Medicine and PHYS 399, Introduction to Machine Olfaction) and one new course that supports the graduate program in Homeland Security Science (PHYS 590, Physics of CBE [chemical-biological-explosive] Detection).

Dr. Dobrokhotov has a strong record of service at the departmental, college, university and community levels. He currently serves as the director of the undergraduate Biophysics Laboratories. Last year Vlad was encouraged to provide internship-type opportunities for physics majors to work at the API, with the goal of providing students who have not yet engaged in research with a meaningful research experience and the possibility to continue their projects as paid undergraduate student researchers. We find that he was very responsive to this request and commend him for using this approach as a means to increase the involvement of physics majors in projects at the API.

The committee looks forward to the continued growth of the research enterprise at the API under Dr. Dobrokhotov's leadership and to his participation, as a senior member of the faculty, in moving the department forward in a variety of initiatives and directions. In particular, we hope that he will work to further increase the integration of the API with the everyday departmental workflow. To support that

goal, we request that the department head commit to providing an on campus laboratory that can be used by Dr. Dobrokhotov and API staff and students for expanded research support of the API mission in the years ahead.