Agendum
Oakland University
Board of Trustees Formal Session
February 7, 2019

APPROVAL OF HONORARY DEGREE FOR JOHN MICHAEL KOSTERLITZ A Recommendation

- **1.** <u>Division and Department</u>: Academic Affairs, Office of the Senior Vice President for Academic Affairs and Provost.
- 2. <u>Introduction</u>: In accordance with Article IX of the Bylaws of the Board of Trustees, honorary degrees may be awarded by the Board of Trustees in recognition of distinguished accomplishment and service within the scope of the arts and letters, sciences, professions, and public service as recognized and supported by the University. The awarding of honorary degrees reaffirms Oakland University's scholarly, creative, and humanitarian values and ties the University to the community at large.

Nobel Laureate (2016) Professor J. M. Kosterlitz has made seminal contributions to the field of condensed matter physics. Professor Kosterlitz was born in Aberdeen, Scotland in 1943 to Walter and Johanna Maria Kosterlitz, who had fled Hitler's Germany. He received his PhD from Oxford University and held postdoctoral positions at the University of Birmingham and Cornell University before joining the physics department at Brown University where he holds the rank of Professor.

The Nobel Prize Committee recognized Kosterlitz along with his collaborators David Thouless and Duncan Haldane for theoretical discoveries of topological phase transitions and topological phases of matter that ultimately allowed them to show that a thin two dimensional film of helium could undergo a transition from a normal liquid to an exotic superfluid that can flow without transition. This phenomenon has become known as the Kosterlitz Thouless transition that has applications to many phenomena. Kosterlitz has been listed as a co-author on more than 9000 papers and the original paper has been cited more than 7000 times. Typically, a paper in condensed matter physics receiving 100 citations is considered a classic. Kosterlitz has 14 such papers on a wide range of topics, including work on superfluids, ferro- and antiferro- magnetic systems, spin glasses, eutectic growth and superconductors. In addition to winning the Nobel Prize in physics, he has also received the Lars Onsager Prize from the American Physical Society, the Maxwell Medal and Prize from the British Institute of Physics and has been named a "Great Immigrant" by the Carnegie Corporation of New York. He was named a member of the National Academy of Sciences in 2017 and has been a Fellow of the American Physical Society since 1987.

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Professor Kosterlitz has served as a visiting professor at numerous institutions including Princeton, Neuchatel University Switzerland, Helsinki University, McGill University, and the Korea Institute for Advanced Study to name a few. Kosterlitz also has a connection to Oakland University. He visited our institution in the late 1990s and has published four papers with a faculty member, Ken Elder, Professor of Physics. In one manuscript a new model was developed to understand eutectic solidification, the process in which a binary alloy solidifies and produces complex patterns comprised of stripes of different alloy composition. These patterns often play a strong role in determining the properties, such as structural, electromagnetic and thermal materials. This paper has been cited over 100 times.

Professor Kosterlitz has established a record of outstanding achievements in Academe and has contributed to humankind's intellectual betterment and is deserving of the degree Doctor of Science Honoris Causa.

- **3.** <u>Previous Board Action</u>: The Board of Trustees periodically awards honorary degrees at its Formal Sessions.
- 4. <u>Budget Implications:</u> None.
- **5.** Educational Implications: The awarding of honorary degrees is an established tradition in academe, by which the University reaffirms its scholarly, creative, and humanitarian values and its ties to the wider community.
- **6. Personnel Implications:** None.
- 7. <u>University Reviews/Approvals</u>: The Senior Vice President for Academic Affairs and Provost has recommended approval of the recipient to receive an Honorary Degree.
- **8.** Recommendation RESOLVED, that the Board of Trustees awards the honorary degree of Doctor of Science *Honoris Causa* to John Michael Kosterlitz.

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9. Attachments: None.

Submitted to the President

on 2/5, 2019 by

James P. Lentini, D.M.A. Senior Vice President for Academic Affairs and Provost

Recommended on _

, 2019

to the Board for Approval by

Ora Hirsch Pescovitz, M.D.

President