

THE UNIVERSITY OF MICHIGAN

Regents Communication

ACTION REQUEST

Subject: Report of Faculty Retirement
Action Requested: Adoption of Retirement Memoir

Paul R. Berman, Ph.D., professor of physics in the College of Literature, Science and the Arts, will retire from active faculty status on December 31, 2015.

Professor Paul Berman received his B.S. (1965) degree from Rensselaer Polytechnic Institute and his M.S. (1966) and Ph.D. (1969) degrees from Yale University. He served on the faculty of New York University from 1971-93. He joined the University of Michigan faculty as a professor in 1993.

A renowned physicist, exceptional teacher, and dedicated mentor, Professor Berman studied theoretical atomic, molecular, and optical physics. He explored the use of nonlinear spectroscopy as a probe of atomic vapors and the influence of collisions on the response of an atomic ensemble to one or more incident radiations fields. Professor Berman's recent work encompassed a number of topics including collective radiation modes of atomic ensembles, entanglement of atoms using optical fields, light scattering by two or more atoms, dipole blockades using Rydberg atoms, and modified atom-field interactions in dielectrics. His success frequently is the result of taking a problem that is relatively easy in one theoretical approach and solving it in the Schrödinger picture of quantum mechanics. One major outcome of his spectroscopy work was the development of the modified optical Bloch equations which continue to be used today for describing the interaction of light with matter. Professor Berman co-authored the essential textbook *Principles of Laser Spectroscopy and Quantum Optics* (2011), developed a number of interdisciplinary courses, and inspired a generation of undergraduate and graduate students. He was elected a fellow of the American Physical Society (1987) and the Optical Society of America (2008).

The Regents now salute this distinguished teacher and scholar by naming **Paul R. Berman, professor emeritus of physics**.

Requested by:



Sally J. Churchill, J.D.
Vice President and Secretary of the University

December 2015