

# THE UNIVERSITY OF MICHIGAN

*Regents Communication*

Adopted by the Regents  
March 15, 2007

## ACTION REQUEST

**Subject: Report of Faculty Retirement**

**Action Requested: Adoption of Retirement Memoir**

**Philip A. Hughes, D. Phil.**, research scientist and lecturer I in the Department of Astronomy in the College of Literature, Science, and the Arts, retired from active faculty status on October 31, 2006.


A native of the United Kingdom, Dr. Hughes received his B.Sc. degree from the University of London in 1973, his M.Sc. and D. Phil. degrees from the University of Sussex in 1974 and 1981, respectively, and was a postdoctoral research fellow at the Cavendish Laboratory, Cambridge, U.K., from 1981-83. He came to the University of Michigan as a lecturer in the Department of Astronomy in 1983 and was a visiting lecturer from 1984-86 and a visiting assistant research scientist from 1986-88. Dr. Hughes was appointed assistant research scientist in 1988, and was promoted to associate research scientist in 1990 and research scientist in 2003. Since 1990, he has also held an additional appointment as a lecturer.

Dr. Hughes is best known for his work in the numerical simulation of jet flows in extragalactic objects. His success in computing theoretical models for relativistic jets in active galactic nuclei provided quantitative agreement with structure and polarization measurements in observed sources, and quickly convinced workers in the field of the importance of internal shocks in these high speed relativistic flows. He went on to develop computer algorithms which permit hydrodynamic calculations involving shocks when the flows are highly relativistic. This was an important advance in the understanding of the relativistic flows in the jets of active galactic nuclei. He also has made significant contributions to the statistical analysis of variable phenomena.

During his tenure at Michigan, Dr. Hughes taught many undergraduate and graduate courses in the Department of Astronomy and directed the research programs of several doctoral students. He is the author of many scientific articles and editor of two significant books about the physics of relativistic jets. Dr. Hughes is a fellow of the Royal Astronomical Society and a member of the American Astronomical Society and the International Astronomical Society Commission 40.

The Regents salute this distinguished scholar by naming **Philip A. Hughes research scientist emeritus**.

**Requested by:**

  
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**Sally J. Churchill**  
Vice President and Secretary of the University

**March 2007**