RECIPIENTS OF MAA-NJ DISTINGUISHED TEACHING AWARD

Sr. M. Stephanie Sloyan, Georgian Court College	1992
Eileen Polani, St. Peter's College	1993
Richard Bronson, Fairleigh Dickinson University	1994
Siegfred Haenisch, The College of New Jersey	1995
Andrew Demetropoulos, Montclair State University	1996
Roger Pinkham, Stevens Institute of Technology	1997
Virginia Lee, Brookdale Community College	1998
Amy Cohen, Rutgers University-New Brunswick	1999
Janet H. Caldwell, Rowan University	2000
Evan Maletsky, Montclair State University	2002
Stephen J. Greenfield, Rutgers University-New Brunswick	2003
Arthur Schwartz, Mercer County Community College	2004
Bonnie Gold, Monmouth University	2006
Bruce G. Bukiet, New Jersey Institute of Technology	2008
Thomas Osler, Rowan University	2009

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MATHEMATICAL ASSOCIATION OF AMERICA

NEW JERSEY SECTION

Award for Distinguished College or University Teaching of Mathematics

Spring Meeting

Saturday, April 10, 2010
Middlesex County College
Edison, New Jersey

In 1991 the Mathematical Association of America instituted Awards for Distinguished College or University Teaching of Mathematics in order to honor college or university teachers who have been widely recognized as extraordinarily successful, and whose teaching effectiveness has been shown to have had influence beyond their own institutions.

Citation

Dr. Robert L. Wilson

The New Jersey Section of the Mathematical Association of America is pleased to present its 2010 Award for Distinguished College or University Teaching to Robert L. Wilson.

Dr. Wilson has been a dedicated and respected teacher since he first joined the Department of Mathematics at Rutgers in 1971. His exposition is carefully planned and elegant regardless of nature of the course – a service course, one for mathematics majors, or one for doctoral students. More importantly, his carefully considered examples and comments provide insight into the material in a style both accessible and engaging to students. His dedication is almost superhuman. While serving as Area Dean and Vice Dean in Arts and Sciences he always taught. At times he taught oversized classes rather than see students delay graduation because required courses were closed. Undergraduate and graduate students are welcome in his office and make good use of his office hours. He has supervised research experiences for undergraduates for several years, taking care to include Rutgers undergraduates in his groups. At least two have been guided to results publishable in professional journals. At the MAA-NJ Section meeting in November 2008, Professor Wilson structured his hour talk to culminate in a report of an REU student's results on solutions of quadratic equations with matrix coefficients where the unknown is a matrix.

Professor Wilson's research in algebra (much of it joint work with his Rutgers colleagues Israel Gelfand, Jim Lepowsky, and Vladimir Retakh) has attracted large numbers of graduate students. He has supervised (alone or jointly) 16 doctoral dissertations. At least three of his doctoral students have held faculty positions in New Jersey mathematics departments (Haisheng Li, Yasmine Sanderson, and David Nacin). Because of the care and respect Wilson shows for teaching, his students work to become effective teachers themselves. Nor is this mentoring of college and university level faculty limited to his own graduate students – he has guided several post-doctoral associates and young faculty by example and by quiet conversation.

Robert Wilson does not seek recognition or overt leadership roles for his involvement in course development at Rutgers. Nonetheless, he has influenced what mathematics is taught at Rutgers, and how it is taught. He was one of the group involved in developing and offering the course Intensive Calculus (Math 153-154) as part of Project EXCEL. This course was designed in 1989-90 for students who placed into the introductory calculus sequence (Math 151-52) for mathematical and physical sciences including engineering but who had "non-academic indicators of risk" – families without college education, membership in under-represented groups, graduation from urban or rural high schools, severe economic stress. The course covered the standard syllabus of Math 151-52 and used its common

final exam. It required extended contact time, with three 80-minute workshops a week led by specially trained TA's with the assistance of undergraduate peer mentors. One clear indication of success is data showing that engineering students completing EXCEL passed all subsequent required mathematics courses on their first attempt, whereas a roughly matched sample averaged two attempts for each pass. Wilson then helped extend the workshop approach to the undergraduate Abstract Algebra course, in which the faculty lecturer himself leads an 80-minute required workshop each week in addition to giving two lectures each week. Finally, in various administrative posts he supported the introduction of a modified workshop pedagogy to all calculus courses for mathematics, physics and engineering. He is currently on a committee developing a Summer Institute course for in-service middle school mathematics teachers to deepen understanding of the transition from arithmetic to algebra. He will assist in its first offering in July 2010.

As Department Chair and in various leadership roles in the Faculty of Arts and Sciences he provided guidance and administrative support for many efforts to improve the effectiveness of teaching. As Supervising Dean for the Mathematics and Science Learning Center from 1994 to 2003, he provided valuable counsel to that provider of tutoring and supplementary instruction. In his decanal roles he supported the initiative that lead to joint appointments in Mathematics and the Mathematics Education group in the Graduate School of Education. He also supported the applications of new mathematics faculty for NExT Fellowships. As a last example, he has worked with faculty in the Mathematics Education group in our Graduate School of Education as well as with colleagues in Mathematics to help improve the pre-service mathematical education of teachers.

Robert Wilson earned his BA from The American University in 1965 and his PhD from Yale University in1969. He went to the Courant Institute of Mathematical Sciences as an Instructor in 1969 and came to Rutgers in 1971. He served as Chair of the Department of Mathematics 1990-93, as Area Dean for the Mathematical Sciences 1993-96, as Area Dean for the Mathematical and Physical Sciences 1996-2000, and as Vice Dean of the Faculty of Arts and Sciences 2003-06. After returning to the faculty in 2003, he served as Acting Chair for 2005-06.

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Dr. Vladimir Retakh of the Mathematics Department, Rutgers University, nominated Dr. Wilson for this Distinguished Teaching Award.

Response from Professor Wilson

I am honored to receive the New Jersey Section's 2010 Award for Distinguished College or University Teaching.

Upon reading the citation for the award, I realize that most of the accomplishments mentioned were the result of my collaborating with or following the example of colleagues. Thus much of my success as an advisor of graduate students has come from trying to follow the examples of my own mentors, George Seligman and Nathan Jacobson and also working closely with my colleague Jim Lepowsky. Similarly, almost all of the innovations in the Rutgers undergraduate program that I have been associated with have grown out of ideas put forth by colleagues (including Michael Beals, Amy Cohen, Stephen Greenfield, and Charles Sims). Thus, I view this award as belonging to my colleagues as much as to me.