

2006 Conant Prize

The 2006 Levi L. Conant Prize was awarded at the 112th Annual Meeting of the AMS in San Antonio in January 2006.

The Conant Prize is awarded annually to recognize an outstanding expository paper published in either the *Notices of the AMS* or the *Bulletin of the AMS* in the preceding five years. Established in 2001, the prize honors the memory of Levi L. Conant (1857–1916), who was a mathematician at Worcester Polytechnic University. The prize carries a cash award of US\$1,000.

The Conant Prize is awarded by the AMS Council acting on the recommendation of a selection committee. For the 2006 prize, the members of the selection committee were: Noam D. Elkies, Carl R. Riehm, and M. B. Ruskai (chair).

Previous recipients of the Conant Prize are: Carl Pomerance (2001), Elliott Lieb and Jakob Yngvason (2002), Nicholas Katz and Peter Sarnak (2003), Noam D. Elkies (2004), and Allen Knutson and Terence Tao (2005).

The 2006 Conant Prize was awarded to RONALD M. SOLOMON. The text that follows presents the committee's citation, a brief biographical sketch, and the awardee's response upon receiving the prize.

Citation

The Levi L. Conant Prize in 2006 is awarded to Ronald Solomon for his article "A Brief History of the Classification of the Finite Simple Groups", *Bulletin of the AMS* **38** (2001), no. 3, 315–352.

Solomon gives a remarkable overview of the work on the classification problem, from its inception in an 1893 paper by Otto Hölder to the recent two-volume proof of the final theorem by Michael Ashbacher and Stephen Smith. Solomon's article stresses key developments in a way that

makes connections with other aspects of group theory so that the subject becomes more than just taxonomy. Thus, he provides a glimpse into a broad panorama of finite group theory. The article gives an unusual insider's look at the process of mathematical research, with its false starts, insightful conjectures, and dogged determination. One sees different approaches go in and out of fashion and sometimes return with renewed vigor. Finally, he argues convincingly that even if the classification is complete, many avenues remain open for further investigation. The exposition is enhanced by descriptions of the personalities of the many contributors and their interactions.

Solomon has written a valuable survey, accessible to a broad spectrum of mathematicians, that is both engaging and enlightening.

Biographical Sketch

Ron Solomon was turned on to mathematics by his high school geometry teacher, Blossom Backal. He fell in love with group theory as an undergraduate at Queens College and had the great good fortune to study with the masters—Walter Feit, David Goldschmidt, Richard Lyons, and Leonard Scott—while earning a Ph.D. at Yale University in 1971. The National Science Foundation Summer Institute in 1970 was an unforgettable interlude. In the summer of 1972, he heard Danny Gorenstein propose his visionary sixteen-step program for the classification



Ronald M. Solomon

of the finite simple groups and spent two years as a Dickson Instructor at the University of Chicago, learning with Jon Alperin and George Glauberman, and climbing one of Danny's steps. In 1974-1975, he made the first of several fruitful pilgrimages to Rutgers University, and then began thirty years (and counting) on the faculty of the Ohio State University. His sons, Ari and Michael, were born in 1980 and 1982, and have filled his life with love, joy, intellectual sparring, and periodic tsurus. In 1982, he began an ongoing collaboration with Gorenstein and Lyons to write a series of monographs presenting a substantial portion of the proof of the classification theorem. Since 2004, he has been blessed with the love of his wife, Rose.

Response

It is a great honor to receive the Levi L. Conant Prize from the Society. I am saddened that neither my mother nor Walter Feit nor Danny Gorenstein are alive to share the joy of this occasion. My mother deserves double credit. I learned my writing skills from her, and my teenage rebellion against her authority drove me into mathematics. Walter and Sidnie Feit have always been most complimentary of my skills at group theory exposition, and of course I learned much at the knee of that master expositor, Danny Gorenstein.

A work of historical narrative can only be as good as its subject, and I had the advantage of a wonderful theme. The saga of the taming of the finite simple groups is a great one, shaped by titans of the imagination from Lagrange, Gauss, and Galois to Thompson, Gorenstein and Aschbacher, with many other illustrious participants. It has been a rare privilege to be a friend and collaborator of the latter-day titans, and to tell a bit of their story. My thanks to you all for reading and enjoying the tale.

2006 AMS Sectional Meetings

April 1-2, 2006

Florida International University, Miami, FL

April 8-9, 2006

University of Notre Dame, Notre Dame, IN
(features the Erdős Memorial Lecture by Béla Bollobás)

April 22-23, 2006

University of New Hampshire, Durham, NH

April 29-30, 2006

San Francisco State University, San Francisco, CA
(features the Einstein Public Lecture in Mathematics by Benoît Mandelbrot)

October 7-8, 2006

University of Utah, Salt Lake City, UT

October 21-22, 2006

University of Cincinnati, Cincinnati, OH

October 28-29, 2006

University of Connecticut, Storrs, CT

November 3-4, 2006

University of Arkansas, Fayetteville, AR

For more information, see

<http://www.ams.org/amsmtgs/sectional.html>