

AWM Awards Given in Washington, DC

The Association for Women in Mathematics (AWM) presented two awards at the Joint Mathematics Meetings in Washington, DC, in January 2009.

Louise Hay Award

Established in 1991, the annual Louise Hay Award recognizes outstanding achievements in any area of mathematics education. Louise Hay was widely recognized for her contributions to mathematical logic and her devotion to students.

The 2009 Hay Award was presented to DEBORAH LOEWENBERG BALL of the University of Michigan. Ball was honored for her important research into the mathematics needed by elementary school teachers, her ability to communicate mathematics to children and related understandings to diverse communities of adults, and her effective national and international leadership.

Deborah Ball presents a unique combination of highly integrated talents and accomplishments—long experience and continued engagement as an accomplished elementary mathematics teacher; original, rigorous, and prolific contributions on the frontiers of research in mathematics education; a high standing and respect among research mathematicians; and visionary intellectual and administrative leadership to reform the institutions of mathematics teacher education in this country. She is currently dean of the School of Education at the University of Michigan.

One of Ball's primary research interests is the mathematical knowledge needed for teaching (MKT). Her investigations of what MKT is, how it may be measured, and how teachers' knowledge of it impacts the learning of children are providing a foundation for reforms of the mathematics education and development of teachers.

Ball was a major contributor to several NRC projects, notably the one that produced the widely-cited report *Adding It Up*. She was one of the few educators on the Glenn Commission, otherwise populated mainly by members of Congress and business leaders. She headed the subgroup on teaching of the National Mathematics Advisory Panel, whose report was recently released. She chaired the International Commission on Mathematics Instruction Study 15 on the Professional Education and Development of Teachers of Mathematics. Deborah Hughes Hallett of the University of

Arizona (and an earlier recipient of the Hay Award) wrote, "Over the last decade, Deborah has been extraordinarily effective in promoting real collaboration and communication. In countless presentations, videotapes, and live demonstrations, she has displayed the insight a mathematics educator brings to an elementary school classroom."

Schafer Prize

The Alice T. Schafer Prize for Excellence in Mathematics by an Undergraduate Woman was established in 1990. The prize is named in honor of Alice T. Schafer, one of the founders of AWM and one of its past presidents.

The 2009 Schafer Prize was presented to MARIA MONKS of the Massachusetts Institute of Technology. Monks, a junior mathematics major, has already written six research papers; one has been accepted for publication by the *Journal of Combinatorial Theory Series A*, three have been submitted to leading research journals, and the other two are in nearly final form. On five of these six papers she is the sole author. Her outstanding work is already so widely known that she gets invitations to speak at mathematics meetings and in research departments. At the same time, Monks does exceptional work in her classes at MIT and has achieved a perfect grade point average. She has furthermore contributed phenomenal service to the mathematics community, for example by coaching the USA China Girls' Math Olympiad team.

Monks' outstanding research abilities, her exceptional coursework, and her great leadership in the mathematics community make her this year's winner of the Schafer prize. In her response upon receiving the prize, she particularly thanked her father, who she says "opened my eyes to the beauty of mathematics and served as a coach, teacher and mentor throughout my childhood, inspiring me to pursue my love of mathematics to the best of my ability."

Additionally, the accomplishments of three outstanding young women, all senior mathematics majors, were recognized by honorable mentions: DORIS DOBI, Massachusetts Institute of Technology; NICOLE LARSEN, Georgia Institute of Technology; and ILA VARMA, California Institute of Technology.

—From AWM announcements