Gung and Hu Distinguished Service Award

The Yueh-Gin Gung and Dr. Charles Y. Hu Award for Distinguished Service to Mathematics is the most prestigious award for service offered by the MAA. The Gung and Hu Award is the endowed successor to the MAA's Award for Distinguished Service to Mathematics, first presented in 1962. It is to be made for service to mathematics that has been widely recognized as extraordinarily successful. The period of service may be long or short, and the award may be made on the basis of one or several activities. The contribution should be such as to influence the field of mathematics or mathematical education in a significant and positive way on a national scale.

Victor J. Katz

Professor of Mathematics emeritus at the University of the District of Columbia

Victor Katz is widely recognized as a top scholar in the history of mathematics. We honor him with the 2023 Yueh-Gin Gung and Charles Y. Hu Award not for his scholarship, but for the way he leveraged this exceptional scholarship in the service of mathematics. We highlight two distinctive areas of impact: Katz's work has served a generation of teachers and students by repositioning the role of historical perspectives in mathematics education, revealing the human face of our field. It has also served the larger mathematical community by creating and organizing materials to show that mathematics is a multicultural enterprise that involves all humanity, not just the Men of Mathematics described by E. T. Bell. Katz has trained a generation of mathematicians to teach our history in a rigorous, responsible, and human way. His legacy lives on in *Convergence*, a lively journal that he co-founded in 2004.

An early sign that Katz was poised to influence a generation is the reception of his text, *A History of Mathematics: An Introduction,* first published in 1992. This text, written after he had taught the history of mathematics for many years at the University of the District of Columbia, showed the influence of his students who came from many places around the world. About to appear in its fourth edition, the book won the Watson Davis Prize of the History of Science Society in 1995. Already we see a commitment to highlighting non-Western contributions to mathematics. Perhaps the most significant of Katz's service contributions was founding the Institute for the History of Mathematics and Its Use in Teaching (IHMT) with Fred Rickey, funded by an NSF grant initially obtained in 1995. The institute produced several cohorts of teachers trained to develop their own courses on the history of mathematics. It is not too strong to say that this institute changed the way the subject is taught.

While the first rounds of IHMT focused primarily on teaching a history course, Katz's continued success winning NSF grants expanded the program to include secondary teachers and facilitated bringing historical materials into any mathematics course. Rather than corralling history into a single, separate course, this project popularized the idea of bringing historical perspectives and original sources into every course, an idea he had developed at UDC. While a strictly subject-based curriculum emphasizes depersonalized abstract structures, a curriculum enriched by historical understanding humanizes mathematics. It reminds us that mathematics is an ongoing human project where everyone's efforts are important.

In the IHMT project and in Katz's widely adopted text, non-Western perspectives on the history of mathematics play a strong role. A further sequence of sourcebooks amplified this theme: *The Mathematics of Egypt, Mesopotamia, China, India, and Islam* (Princeton University Press, 2007) and *Sourcebook in the Mathematics of Medieval Europe and North Africa* (Princeton University Press, 2017). In a time when we want to show that mathematics is not just something inherited from European thinkers, these materials are invaluable.

Evidence of the lasting impact of Katz's legacy is abundant. The health of HOM-SIGMAA, the Special Interest Group of the MAA for the History of Mathematics, shows continued enthusiasm for engaging with the history of mathematics. More significantly, the journal *Convergence*, founded by Katz with Frank Swetz, is going strong, having published its 19th volume. Katz's legacy extends far beyond U.S. shores.

For all these reasons, the MAA is delighted and honored to present the Yueh-Gin Gung and Charles Y. Hu Award to Victor Katz.

Response

It is a great honor to be recognized by the MAA through this award. But the accomplishments cited could never have been done without the assistance of numerous people. First and foremost, it was my wife Phyllis who encouraged me to write the textbook in the history of mathematics, when a publisher asked me to do so after rejecting my submission of a text teaching secondary mathematics using history. She has continued to support and encourage me in so many aspects of my career. Among the many historians of mathematics who were influential in my thinking about the history of mathematics were Ubiratan D'Ambrosio, Marcia Ascher, Joseph Dauben, Barnabas Hughes, Karen Parshall, and Uta Merzbach. And many people were influential in the creation and success of IHMT, including Fred Rickey, Florence Fasanelli, Marcia Sward, and Tina Straley. I also want to thank all of the participants

in IHMT, many of whom continue to contribute to teaching the history of mathematics and its use in the classroom after many years. As to *Convergence*, it was created through a grant to the MAA, with myself and Frank Swetz as the original editors. But much of its success is due to the editors who followed, Janet Beery, Janet Barnett, and Amy Ackerberg-Hastings, to each of whom I extend my profound thanks and appreciation. I look forward to many more years of watching so many people humanize the teaching of mathematics through its history.

Biographical Sketch

Victor J. Katz, professor of mathematics emeritus at the University of the District of Columbia, earned his BA from Princeton University in 1963 and his PhD from Brandeis University in 1968. He taught at the University of the District of Columbia and its predecessor, Federal City College, for 37 years, with leaves to serve as a Visiting Mathematician at the MAA as well as the Dean of Mathematics at the Ross School, an innovative independent school in East Hampton, New York. Besides his textbook, *A History of Mathematics: An Introduction,* which will soon appear in its fourth edition, and two *Sourcebooks* on ancient and medieval mathematics, Professor Katz has edited three books for the MAA dealing with the use of the history of mathematics in teaching mathematics as well as two collections of historical articles taken from journals of the MAA in the past 100 years. The materials from his two NSF-sponsored projects to help college and secondary school teachers learn the history of mathematics were published in 2005 by the MAA as *Historical Modules for the Teaching and Learning of Mathematics.* Professor Katz has been married for over 53 years to Dr. Phyllis Katz, who works in science education. Together, they have three adult children and eight grandchildren.