MEMORIAL RESOLUTION
GENE H. GOLUB

(1932-2007)

Gene Howard Golub, Fletcher Jones Professor of Computer Science and, by courtesy, of Electrical Engineering, died at Stanford Hospital on November 16, 2007 at age 75 after a recent diagnosis of acute myeloid leukemia.

Gene was born on February 29, 1932 in Chicago. He was the second son of Jewish immigrant parents from Latvia and the Ukraine. He earned his bachelors, masters and PhD, all in mathematics, from the University of Illinois. He received his Ph.D. (1959) in mathematics under the direction of Abraham Taub, a wartime colleague of John von Neumann, on the topic of *The Use of Chebyshev Matrix Polynomials in the Iterative Solution of Linear Equations Compared to the Method of Successive Overrelaxation*.

In 1959 he received an NFS Fellowship and worked as a fellow at the Mathematical Laboratory at University of Cambridge for 15 months. He worked for several industrial companies, Lawrence Radiation Laboratory, and Space Technology Laboratories before he returned to academia.

In 1962, Gene joined the faculty of Stanford as a visiting assistant professor in the Computer Science Division. The Stanford University Computer Science Department was officially founded by George Forsythe in 1965 and Gene joined the department along with John McCarthy, Donald Knuth and other well–known researchers. He was chairman of the department from 1981 to 1985.

Gene was a leading pioneer in the field of numerical analysis, creating algorithms and software that allowed researchers to run engineering and science calculations on computers. In 1964, together with William Kahan and Christian Reinsch, he created an algorithm to compute the Singular Value Decomposition, or SVD, which will forever be an essential computational tool.

Professor Golub's many contributions have been internationally recognized. He was the recipient of 10 honorary degrees from institutions around the world and an honorary member of numerous societies. He authored or co-authored 18 books and about 250 papers over the course of his lifetime. He was elected to the American Association for the Advancement of Science (1981), Royal Swedish Academy of Engineering Sciences (1986), the National Academy of Engineering (1990), the National Academy of Sciences (1993), the American Academy of Arts and Sciences (1994), Academy of Sciences of the Czech Republic (1994), and the Hall of Fame for Engineering, Science and Technology (2002). Gene received the B. Bolzano Gold Medal for Merit in the Field of Mathematical Sciences in 1994. Of all his achievements, though, he was most proud of his 30 Ph.D. students and their accomplishments.

Throughout his career Gene was very involved with the applied mathematics community. He was president of SIAM, Society for Industrial and Applied Mathematics, and founded two SIAM journals: SIAM Journal on Scientific Computing (SISC) and SIAM Journal on Matrix Analysis and Application (SIMAX).

The list of his outstanding achievements would not be complete without his extraordinary dedication to people. He liked to say, "Every numerical analyst has a second home at Stanford." He was known for being able to remember everyone's name and introduce them at meetings he hosted. Many colleagues enjoyed a glass of wine at his home, and hundreds of them stayed over for a night or even a month at his invitation. Gene was outgoing and especially kind to newcomers in the field. Graduate students around the world admired and loved him, and he bought them all dinner when he got the chance. He enjoyed being a mentor both in research and in life.

On February 29, 2008, Gene's "19th" birthday, memorials were held at Stanford and at 30 additional locations around the world to celebrate his life and scientific accomplishments. He will be remembered as a remarkable man who was a pioneer in his field and generous with his time to his many friends.

Committee:

Jennifer Widom, Chair
Walter Murray
Michael Saunders
Gio Wiederhold