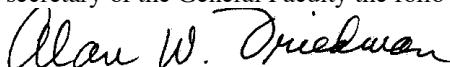


DOCUMENTS OF THE GENERAL FACULTY

**REPORT OF THE MEMORIAL RESOLUTION COMMITTEE FOR
ERNST LOTHAR KOSCHMIEDER**

The special committee of the General Faculty to prepare a memorial resolution for Professor Emeritus Ernst Lothar Koschmieder, Department of Civil, Architectural, and Environmental Engineering, has filed with the secretary of the General Faculty the following report.



Alan W. Friedman, Secretary
General Faculty and Faculty Council
The University of Texas at Austin
Arthur J. Thaman and Wilhelmina Doré Thaman Professor of English and Comparative Literature

**IN MEMORIAM
ERNST LOTHAR KOSCHMIEDER**

Ernst Lothar Koschmieder, Civil Engineering Professor Emeritus, died on October 13, 2017, in Fredericksburg, Texas, at home with family, at the age of eighty-eight.

He was born in Frei Stadt Danzig, Germany on May 1, 1929, to Harald and Frau Hilda (née Wessig) Koschmieder. Professor Koschmieder earned his doctorate in physics in 1963 from the University of Bonn in Germany with Nobel Prize winner Professor W. Paul as his supervising professor. In 1963 with wife (Kaete, née Gläser) and infant son, he left Germany for the United States. He started his professional career as a researcher at Harvard University. During the two years at Harvard, a second son was born. The family moved to the University of Chicago and then to the University of Oklahoma. He came to the University of Texas at Austin in 1968, where he joined the Department of Civil Engineering. Koschmieder taught courses in fluid mechanics, meteorology, and oceanography. These courses were popular with students. He retired from UT Austin in 1996 and was named professor emeritus.

Lothar Koschmieder's doctoral research focused on particle physics. Throughout his career he pursued this research independently, developing a model for how subatomic particles are held together in crystal-like structures and the integer multiple rule for how subatomic particles are related to each other. Koschmieder published a total of seventeen papers in the field of particle physics.

Professor Koschmieder's research that is most familiar to his civil engineering colleagues involved convection, a fluid dynamics phenomenon that is especially important in the field of meteorology. This research was initiated as a side project during his graduate studies at the University of Bonn and continued throughout his academic career. Koschmieder was recognized as a meticulous fluid dynamics experimentalist. He developed an experimental research program to understand how heat-driven convection occurs on a spherical surface such as the earth's, a topic for which there was limited experimental data. His convection research, which focused predominately on Taylor Vortices and Bénard Cells, produced thirty-two published papers, which are frequently referenced. Photographs of his convection experiments have been reprinted in more than 100 papers and books. A result of the convection experiments is the now classic book *Bénard Cells and Taylor Vortices*, published by Cambridge University Press (1993). Professor Koschmieder in thoroughness cited 500 primary sources in his book. For one semester he held the H.M. Alharthy Centennial Professorship, which provided uninterrupted time to write.

During his career, Koschmieder took two sabbatical leaves. The first was for a year at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado and the second for a half year at CERN (Saclay) near Paris, France.

Following retirement, Koschmieder became interested in the former Inca Empire of Peru and took several trips to Peru to carry out historical research. This interest led to the book *The Inca Kingdom*, which provides a broad overview of several important Inca sites and points to an Inca prehistory (2012). All the photographs of Inca sites and artifacts are his.

During retirement, Koschmieder also enjoyed staying in Estes Park, Colorado for summers, and clearing mesquite and juniper trees when in Texas. He is survived by Kaete his wife of fifty-four years, two sons, and a daughter in law, a sister in Karlsruhe, Germany, and nieces and nephews also in Germany.

This memorial resolution was prepared by a special committee consisting of Professors Randall J. Charbeneau (chair), Desmond F. Lawler, and David R. Maidment.

Distributed to the Dean of the Cockrell School of Engineering on April 30, 2018, and posted under “Memorial Resolutions” at <https://wikis.utexas.edu/display/facultycouncil/Wiki+Home>.