

H. ARLEN BROWN

Arlen Brown sat for and won a scholarship to the University of Chicago at the insistence of a high school teacher, Ms. Bernice Clark. He arrived there with the intention of becoming a chemical engineer. Upon discovering that Chicago had no engineering school he was heard to remark: "This may be tougher than I suspected." However, in a sophomore calculus class he fell under the spell of Paul Halmos and learned that one could actually earn a living doing mathematics.

Arlen received his B.A. from Chicago in 1948, and his PhD from the same institution in 1952 under the guidance of Irving Kaplansky and the ever-present Paul Halmos. He began his teaching and research career at Rice University as an Assistant Professor. He moved to Michigan as Associate Professor and then to Indiana University in 1967 as Full Professor.

Throughout his mathematical career, Arlen enjoyed an extremely productive research relationship with Carl Peary, one of Arlen's first PhD students at Rice. Arlen and Carl met again at the University of Michigan, where they began joint work on a famous problem in operator theory involving the classification of commutators. A slightly different version of this problem, known as the Heisenberg Indeterminacy Principle, appears in mathematical physics. Their work was crowned with success when they published a complete solution to the problem in 1965 in their famous "Structure of Commutators" paper in the *Annals of Mathematics*.



Arlen and Carl also joined forces to write graduate texts in real analysis and operator theory.

Using his knowledge and appreciation of several languages, Arlen translated Pontryagin's famous text *Topological Groups* from Russian at a time when this work was widely admired by but not readily accessible to the mathematical community in this country. While at Michigan and Indiana, Arlen teamed up with his old mentor, Paul Halmos, to write several profound and influential papers on Toeplitz and Cesaro operators.

Born: Goshen, Indiana September 5, 1926
Died: Bloomington, Indiana May 21, 2020
Years at IU: 1969-1991