Paul R. Halmos - Lester R. Ford Awards

Brian S. Thomson

"The Bounded Convergence Theorem," *The American Mathematical Monthly*, 127:6, 483–503. 10.1080/00029890.2020.1736470

In this well written exposition, the Brian Thomson gives a nice account of the bounded convergence theorem. The theorem was originally formulated for Riemann integrable functions by Cesare Arzelà and rediscovered independently by William Fogg Osgood for continuous functions. Thomson gives proofs for these statements that depend only on undergraduate tools. As an application, he discusses Volterra's problem concerning the existence of a bounded derivative that is not Riemann integrable. In the Appendix, he gives an extension of the Osgood Theorem to abstract spaces using the same elementary method.

Response

It is both an honor and a surprise to receive the Halmos-Ford Award. Over the many years of my interest in real analysis I have seen nearly every mathematician I admire publish interesting and articulate *Monthly* articles. Previous recipients of this award have been masters of exposition. To have my name appear in the same list is humbling. This is my fifth contribution to the *Monthly*.

Biographical Sketch

Brian S. Thomson graduated from the University of Toronto and from the University of Waterloo in the 1960s. He was a lecturer at the latter for three years before moving to a mountaintop on the west coast of Canada to join the faculty at the then new Simon Fraser University. He has long served on the editorial boards of the *Journal of Mathematical Analysis and Applications* and of the *Real Analysis Exchange*.