

Louis H. Kauffman

Louis Hirsch Kauffman was born in Potsdam, New York, on February 3, 1945.

He graduated from Norwood-Norfolk Central High School in 1962 as valedictorian. He received the degree of B.S. in Mathematics from MIT in 1966 and a PhD in Mathematics from Princeton University in 1972. He is a Professor of Mathematics at the University of Illinois at Chicago.

Kauffman's research is in algebraic topology and particularly in low dimensional topology, the mathematics of form, diagrammatic formal systems and cybernetics. He is particularly interested in the structure of formal diagrammatic systems such as the system of knot diagrams as an approach to foundations. His research in knot theory has opened up a new field of knot theory and has resulted in the discovery of many new invariants of knots and links and relationships with theoretical physics and molecular biology. His work on form and formal systems has led to new points of view in cybernetics, particularly in regard to reflexivity and eigenform and distinction.

Kauffman is the author of four books on knot theory (Princeton University Press and World Scientific Press), a book on map coloring and the reformulation of mathematical problems, *Map Reformulation* (Princeton Editions; London and Zurich (1986)) and is the editor of the World-Scientific 'Book Series On Knots and Everything'. He is the Editor in Chief and founding editor of the *Journal of Knot Theory and Its Ramifications*. He is the co-editor of the review volume (with R. Baadhio) *Quantum Topology* and editor of the review volume *Knots and Applications*, both published by World Scientific Press. Kauffman is the recipient of a 1993 University Scholar Award by the University of Illinois at Chicago and he is the recipient of the 1993 Warren McCulloch Memorial Award of the American Society for Cybernetics for significant contributions to the field of Cybernetics, the 1996 award of the Alternative Natural Philosophy Association for his contribution to the understanding of discrete physics and the 2014 Norbert Wiener Gold Medal of the American Society for Cybernetics. He was president of the American Society for Cybernetics from 2005 to 2008. He was a Polya Lecturer for the Mathematical Society of America from 2008 to 2010. He was made a Fellow of the American Mathematical Society in 2012.

See also Wikipedia, https://en.wikipedia.org/wiki/Louis_Kauffman.