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SOLOMON LEFSCHETZ
AN APPRECIATION IN MEMORIAM

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Solomon Lefschetz began and ended his scientific career as a theoretical engineer. In between, he accomplished the work of several lifetimes of creative foundational research in algebraic geometry and topology, complemented by important contributions to such diverse fields of mathematics as differential equations, control theory, and nonlinear mechanics. In addition to his fundamental mathematical discoveries and authoritative expositions, the influence of Professor Lefschetz will long be spread by the mathematical organizations he established, and the students of all levels he inspired by his courageous enthusiasm, humane leadership, and critical scholarship.

Born in Moscow on 3 September 1884, graduate engineer at Ecole Centrale of Paris in 1905, mathematical doctorate from Clark University in 1911, Professor of Mathematics at Princeton from 1925–1953, President of the American Mathematical Society 1935, visiting Professor at the Center for Dynamical Systems at Brown University after 1964, died in Princeton on 5 October 1972; the personal data of the life of Solomon Lefschetz can be read from biographical sources such as The New York Times 7 October 1972, or the *World Who's Who in Science* 1968. In this brief note we can only mention some of his most famous mathematical achievements and comment, from personal knowledge, on some of the remarkable scientific activities and profound influences flowing from his later life.

The best source for understanding the significance of the mathematical work of Lefschetz lies in his own writings. In 1971 he edited a volume, *Selected papers* [**136**], of his major mathematical papers and monographs, including a complete bibliography through 1969 to which the final entries have been added below. Of the eighteen articles in the *Selected papers* the first several deal with global analysis and topology of algebraic varieties. These include the famous paper,

On certain numerical invariants of algebraic varieties, with applications to abelian varieties [**24**] (Awarded Prix Bordin of the Paris Academie des Sciences 1919, and Bôcher Memorial Prize of American Mathematical Society 1924),

the extensive monograph in the Borel Series,