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H. Appelgate, M. Barr, J. Beck, F. W. Lawver
F. E. J. Linton, E. Manes, M. Tierney, F. Ulmer

Seminar on Triples and Categorical Homology Theory

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P r e f a c e

During the academic year 1966/67 a seminar on various aspects of category theory and its applications was held at the Forschungsinstitut für Mathematik, ETH, Zürich. This volume is a report on those lectures and discussions which concentrated on two closely related topics of special interest; namely a) on the concept of "triple" or standard construction with special reference to the associated "algebras", and b) on homology theories in general categories, based upon triples and simplicial methods. In some respects this report is unfinished and to be continued in later volumes; thus in particular the interpretation of the general homology concept on the functor level (as satellites of Kan extensions), is only sketched in a short survey.

I wish to thank all those who have contributed to the seminar; the authors for their lectures and papers, and the many participants for their active part in the discussions. Special thanks are due to Myles Tierney and Jon Beck for their efforts in collecting and coordinating the material for this volume.

B. Eckmann

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