# CONTENTS VOLUME 1

A **TOPOSES AS CATEGORIES.**

A1 **Regular and cartesian closed categories**
- A1.1 Preliminary assumptions
- A1.2 Cartesian categories
- A1.3 Regular categories
- A1.4 Coherent categories
- A1.5 Cartesian closed categories
- A1.6 Subobject classifiers

A2 **Toposes – basic theory**
- A2.1 Definition and examples
- A2.2 The Monadicity Theorem
- A2.3 The Fundamental Theorem
- A2.4 Effectiveness, positivity and partial maps
- A2.5 Natural number objects
- A2.6 Quasitoposes

A3 **Allegories**
- A3.1 Relations in regular categories
- A3.2 Allegories and tabulations
- A3.3 Splitting symmetric idempotents
- A3.4 Division allegories and power allegories

A4 **Geometric morphisms – basic theory**
- A4.1 Definition and examples
- A4.2 Surjections and inclusions
- A4.3 Cartesian reflectors and sheaves
- A4.4 Local operators
- A4.5 Examples of local operators
- A4.6 The hyperconnected–localic factorization
B 2-CATEGORICAL ASPECTS OF TOPOS THEORY

B1 Indexed categories and fibrations
   B1.1 Review of 2-categories
   B1.2 Indexed categories
   B1.3 Fibred categories
   B1.4 Limits and colimits
   B1.5 Descent conditions and stacks

B2 Internal and locally internal categories
   B2.1 Review of enriched categories
   B2.2 Locally internal categories
   B2.3 Internal categories and diagram categories
   B2.4 The Indexed Adjoint Functor Theorem
   B2.5 Discrete opfibrations
   B2.6 Filtered colimits
   B2.7 Internal profunctors

B3 Toposes over a base
   B3.1 S-toposes as S-indexed categories
   B3.2 Diaconescu's Theorem
   B3.3 Giraud's Theorem
   B3.4 Colimits in Top

B4 \mathcal{B}Top/S as a 2-Category
   B4.1 Finite weighted limits
   B4.2 Classifying toposes via weighted limits
   B4.3 Some exponentiable toposes
   B4.4 Fibrations and partial products
   B4.5 The symmetric monad

Bibliography follows p. 467

Index of notation [55]

General Index [61]