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## *Topologie générale*

Dušan REPOVS, Pavel Vladimirovič SEMENOV. — **Continuous selections of multivalued mappings.** — Mathematics and its applications, vol. 455. — Un vol. relié, 17×25, de VIII, 356 p. — ISBN 0-7923-5277-7. — Prix: Dfl. 295.00. — Kluwer Academic Publishers, Dordrecht, 1998.

This book is the first systematic and comprehensive study of the theory of continuous selections of multivalued mappings. This interesting branch of modern topology was introduced by E.A. Michael in the 1950s and has since witnessed an intensive development with various applications outside topology, e.g. in geometry of Banach spaces, manifolds theory, convex sets, fixed points theory, differential inclusions, optimal control, approximation theory, and mathematical economics. The work can be used in different ways: the first part is an exposition of the basic theory, with details. The second part is a comprehensive survey of the main results. Lastly, the third part collects various kinds of applications of the theory.

## *Topologie algébrique*

Michael CRABB, Ioan JAMES. — **Fibrewise homotopy theory.** — Springer monographs in mathematics. — Un vol. relié, 16×24, de VIII, 341 p. — ISBN 1-85233-014-7. — Prix: DM 159.00. — Springer, London, 1998.

Topology occupies a central position in the mathematics of today. One of the most useful ideas to be introduced in the past sixty years is the concept of the fibre bundle, which provides an appropriate framework for studying differential geometry and much else. In this book, fibrewise homotopy theory is developed ab initio, assuming only a basic knowledge of ordinary homotopy theory. The first half of the text provides a survey, beginning with an outline of the basic theory and proceeding to a selection of more specialized topics. The second is concerned with the corresponding stable theory, with some emphasis on theory appropriate for geometric applications.

Glenys LUKE and Alexander S. MISHCHENKO. — **Vector bundles and their applications.** — Mathematics and its applications, vol. 447. — Un vol. relié, 16,5×24,5, de VIII, 254 p. — ISBN 0-7923-5154-1. — Prix: Dfl. 240.00. — Kluwer Academic Publishers, Dordrecht, 1998.

The book is devoted to the basic notions of vector bundles and their applications. The focus of attention is towards explaining the most important notions and geometric constructions connected with the theory of vector bundles. Theorems are not always formulated in maximal generality but rather in such a way that the geometric nature of the objects comes to the fore. Whenever possible examples are given to illustrate the role of vector bundles. *Contents:* Introduction to the locally trivial bundles theory. — Homotopy invariants of vector bundles. — Geometric constructions of bundles. — Calculation methods in  $K$ -theory. — Elliptic operators on smooth manifolds and  $K$ -theory. — Some applications of vector bundle theory.

## *Topologie des variétés, analyse globale et analyse des variétés*

Frédéric PHAM. — **Géométrie et calcul différentiel sur les variétés: cours, études et exercices.** — 2<sup>e</sup> édition. — Sciences supérieures. Mathématiques. — Un vol. broché, 17×24, de XII, 260 p. — ISBN 2-10-004129-0. — Prix: FF 215.00. — Dunod, Paris, 1999.

La première partie a pour but de consolider les acquis essentiels du calcul différentiel de licence. Elle a été profondément remaniée pour cette deuxième édition. La deuxième partie