

de R. Narasimhan.

Le chapitre VI contient un peu de théorie locale, ce qu'il faut pour traiter des faisceaux analytiques cohérents, en particulier le théorème de K. Oka sur la cohérence d'un faisceau de relations.

Le chapitre VII et dernier, consacré aux faisceaux analytiques cohérents sur une variété de Stein, démontre le théorème A de H. Cartan, puis, après avoir défini la cohomologie à valeurs dans un faisceau, le théorème B et enfin le théorème de G. de Rham, suivant la méthode de A. Weil.

Michel Hervé, Nancy

Probleme moderne de theoria functiilor (Modern problems of the theory of functions), by C.A. Cazacu, C. Constantinescu, and M. Jurchescu. Editura Academiei Republicii Populare Romane, Bucharest, 1965. 309 pages.

This work contains material given in the seminar of Professor Stoilow in 1960-1961. It is divided into three parts: (1) Local theory of functions of many complex variables, by Martin Jurchescu (pages 11-149), (2) Theory of currents on an oriented variety, by C. Constantinescu (pp. 155-205), (3) Quasiconformal representations, by Cabiria Adreian Cazacu (pp. 211-309). The authors have endeavoured to make the work self-contained and accessible to readers with the Romanian equivalent of an honours degree in mathematics.

Part (1) begins with a discussion of power series in n -variables over a complete non-discrete valued field, with special attention to the real and complex fields. Later analytic and holomorphic functions in n -variables are considered, and finally analytic and algebraic coverings are discussed. In the process, a succinct presentation of the dimension theories of Urysohn and Menger is given.

In Part (2) the author discusses vector spaces of differential forms over an oriented variety and their duals. In particular he considers the dual space $E'(X)$ of the locally convex space $E(X)$ of infinitely differentiable differential forms on the oriented variety X . $E'(X)$ constitutes the space of currents on X .

Part (3) gives a full treatment of quasiconformal representation, starting with a chapter on homeomorphisms with finite partial derivatives almost everywhere, and closing with a chapter on the existence theorem of Lavrentiev. The author concludes Part (3) with an 85-item bibliography on quasiconformal representations.

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