

# Lecture Notes in Mathematics

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## Global Analysis – Studies and Applications II

Edited by Yu. G. Borisovich and Yu. E. Gliklikh

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## PREFACE

This Lecture Notes volume continues the presentation (begun by the volume II08) of the series "Novoe v global'nom analize" to English speaking readers. This series of books is published in Russian by Voronezh University Press and the main purpose of it is publication of survey (expository) papers, or papers giving a detailed account of important results in Global Analysis and its applications (the title of the series may be translated as New Developments in Global Analysis). Besides, each issue includes a small number of short communications belonging to its scope.

Here we publish the translations of the main papers selected from two Russian issues entitled "Applications of Topology to Contemporary Analysis" (1985) and "Analysis on Manifolds and Differential Equations" (1986). So, the volume is in fact divided into two chapters which are indicated in the Contents by the year of the issue original publication in Russian.

We are indebted to all the members of the series editorial board, especially to A.T.Fomenko, A.S.Mishchenko, S.P.Novikov, M.M.Postnikov and A.M.Vershik. If this volume is useful for mathematicians interested in Global Analysis and its applications, it will be a result of the entire editorial board activity.

Yu.G.Borisovich

Yu.E.Gliklikh

January, 1986

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