# Lecture Notes in Mathematics

# 1214

# Global Analysis –
# Studies and Applications II

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# PREFACE

This Lecture Notes volume continues the presentation (begun by
the volume 1108) of the series "Novoe v global'nom analize" to
English speaking readers. This series of books is published in Rus-
sian by Voronezh University Press and the main purpose of it is
publication of survey (expository) papers, or papers giving a de-
tailed 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 Dif-
ferential Equations" (1986). So, the volume is in fact divided in-
to 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 mathe-
maticians interested in Global Analysis and its applications, it
will be a result of the entire editorial board activity.

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