

Preface

This is the second of two volumes containing peer-reviewed research and survey papers based on invited talks at the International Conference on Modern Analysis and Applications. The conference, which was dedicated to the 100th anniversary of the birth of Mark Krein, one of the greatest mathematicians of the 20th century, was held in Odessa, Ukraine, on April 9–14, 2007. The conference focused on the main ideas, methods, results, and achievements of M.G. Krein.

This second volume is devoted to the theory of differential operators and mechanics. It opens with the description of the conference and a number of survey papers about the work of M.G. Krein. The main part of the book consists of original research papers presenting the state of the art in the area of differential operators.

The first volume of these proceedings, entitled *Operator Theory and Related Topics*, concerns other aspects of the conference. The two volumes will be of interest to a wide-range of readership in pure and applied mathematics, physics and engineering sciences.