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68

Differential Geometry: The Interface between Pure and Applied Mathematics

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Differential Geometry: The Interface between Pure and Applied Mathematics

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held April 23–25, 1986
with support from
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Mladen Luksic
Clyde Martin
William Shadwick
Editors

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PREFACE

In the last century there have been a series of major events in the mathematical community. Some of these events have been of the nature of solutions to major open problems and some of have been of a more nebulous nature. There have been great developments in entire fields and indeed some fields of mathematics have been created, grown, and then disappeared except for small pockets of dedicated aficionado's. We have also seen division, such as the sometimes difficult split between 'pure' and 'applied' mathematics. In the last decade this split has had some significant lessening. Areas of mathematics such as number theory, logic and algebraic geometry, regarded by some as the purest of pure mathematics are now being used to solve problems of applied mathematics. It seems safe to conjecture that significant developments in mathematics will always find significant application.

In this century, however,there has been one area of mathematics that has consistently played a vital role in both 'pure' and 'applied' mathematics–differential geometry. The purpose of the conference at San Antonio Texas in April of 1986 was to draw attention to the fact that differential geometry is now, more than ever, an area of exciting applications and an area where there are still classical problems to solve and new developments to be explored and exploited. There is a tremendous range of applications and techniques that are represented in this volume and there are many more applications that for one reason or another were not included in the conference. Future conferences will undoubtedly include other applications as yet unforeseen.

This conference was organized at the suggestion of Richard Millman, then with the National Science Foundation, and the credit for its success is largely due to him. We are deeply indebted to the speakers and other participants of the conference for challenging presentations and timely submission of manuscripts. This volume was initially typeset by Jennifer Wikowsky and the final manuscripts were completed by Ann Schollmeyer with the assistance of Candace Masters.

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