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Volume 22, 1989

Miniconference on

GEOMETRY AND PHYSICS

(Canberra, 20-23 February, 1989)

Edited by
M.N. Barber and M.K. Murray

PROCEEDINGS

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PREFACE

During 1989 the Centre for Mathematical Analysis hosted a Special Program in Mathematical Physics. This volume of the Proceedings of the Centre for Mathematical Analysis contains reports of some of the major talks presented at a mini-conference on Geometry and Physics held in the Centre from February 20 to 23, 1989 to coincide with a visit to Australia of Sir Michael Atiyah.

A major objective of the CMA's program in general and this conference in particular was to open a dialogue between pure mathematicians and theoretical physicists on topics of mutual interest. The Mini-Conference on Geometry and Physics drew over thirty mathematicians and physicists to the CMA and resulted in three days of exciting, if at times speculative, discussions. The Editors hope that this volume captures some of that excitement and serves as an introduction to some of the areas in which physics and geometry are currently interacting with mutual benefits.

We would like to thank the Director of the Centre for Mathematical Analysis, Professor Neil Trudinger for the support of the Centre and indeed for the initial vision that the Centre should host a program in Mathematical Physics. The success of any conference in the CMA relies heavily on the dedication of the staff of the Centre: in particular, Marilyn Gray for as always dealing effortlessly with every organisational detail and Dorothy Nash for handling the production of these proceedings.

Michael N. Barber and Michael K. Murray, editors.