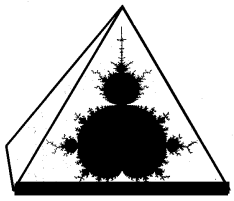
The Mathematics Education into the 21st Century Project



ME21

Rhodes University, Grahamstown

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Proceedings of the 11th International Conference

Turning Dreams into Reality: Transformations and Paradigm Shifts in Mathematics Education

September 11-17, 2011

Editors: Ludwig Paditz & Alan Rogerson

ISBN Number 83-919465-0-9

The Mathematics Education into the 21st Century Project wishes to thank for their support our Major Sponsors:

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OXFORD
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SOUTHERN AFRICA

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Foreword

This volume contains the papers presented at the International Conference on "Turning Dreams into Reality: Transformations and Paradigm Shifts in Mathematics Education" held from September 11-17, 2011 at Rhodes University, Grahamstown, South Africa. The Conference was organized jointly by Rhodes University and The Mathematics Education into the 21st Century Project - an international educational project founded in 1986. Our Project is dedicated to the improvement of mathematics education world-wide through the publication and dissemination of innovative ideas. Many prominent mathematics educators have supported and contributed to the project, including the late Hans Freudental, Andrejs Dunkels and Hilary Shuard, as well as Bruce Meserve and Marilyn Suydam, Alan Osborne and Margaret Kasten, Mogens Niss, Tibor Nemetz, Ubi D'Ambrosio, Brian Wilson, Tatsuro Miwa, Henry Pollack, Werner Blum, Roberto Baldino, Waclaw Zawadowski, and many others throughout the world. Information on our project and its future work can be found on our Project home page http://math.unipa.it/~grim/21project.htm .

In this year, 2011, we celebrate the 25th anniversary of the founding of our Project, when Manmohan Singh Arora suggested the idea to Fayez Mina and myself around a swimming pool in Bahrain (of all places!) That first meeting was, however, typical of the multi-cultured and global character of our Project and it's subsequent conferences throughout the world.

These Proceedings begin with the Plenary Papers and then the other contributions in alphabetical name order of the principal authors. We sincerely thank all of the contributors for their time and creative effort. It is clear from the variety and quality of the papers that the conference has attracted many innovative mathematics educators from around the world.

I wish to thank especially Ludwig Paditz and Douglas Butler for all their support and hard work in the preparation of these Proceedings.

Plenary Speeches

Presented Papers and Workshop Summaries