

**PROCEEDINGS**  
**OF THE NINETEENTH SOUTH AFRICAN**  
**SYMPOSIUM**  
**ON**  
**NUMERICAL MATHEMATICS**

**San Lameer, 12 -14 July 1993**

**SANUM & THE**  
**DEPT OF COMPUTER SCIENCE**  
**UNIVERSITY OF NATAL**  
**DURBAN**

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**SYMPOSIUM**  
**ON**  
**NUMERICAL MATHEMATICS**

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Edited by

Colin J Wright

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## Preface

San Lameer on the Natal South Coast made a delightful setting for the nineteenth annual symposium of the South African Numerical Mathematics Society. The 1993 SANUM Symposium, which took place from 12 to 14 July, was again organized jointly with the Computer Science Department of the University of Natal, Durban.

The SANUM tradition of inviting a keynote speaker from abroad was continued, the 1993 visitor being Professor Ian Sloan of the University of New South Wales, Australia. Other foreign guest speakers were: Professor Ronald Cools, Katholieke Universiteit Leuven Belgium and Dr Shing-Whu Jha, National Central University, Taiwan, while Dr Carl Rohwer of the University of Stellenbosch was the local (South African) keynote speaker. Delegates from across Southern Africa attended the symposium.

Another SANUM tradition is the awarding of a prize for the best paper delivered by an under 35 speaker. Competition for this prize was keen as the quality of talks by eligible speakers was outstanding—the R500 prize being awarded to Veda Hakizumwami, presently a post-graduate student in the Department of Computational & Applied Mathematics of the University of the Witwatersrand, but originally from Zaire.

These Proceedings, comprising a blend of extended abstracts and full papers, form a record of the Symposium presentations. It should be noted that the contents are as contributed by authors—papers and abstracts have not been refereed or edited.

Thanks are due to a number of people for their (often unsung) contributions towards the success of this symposium:

- Professor Chris Creswell, Deputy Vice Chancellor of the University of Natal, Durban, for his continued support of the Society and Symposium;
- Ms Ethel Carte of the Department of Computer Science, University of Natal, Durban and conference organizer supreme for her mammoth contribution to the planning, organization and smooth running of the symposium—she has fortunately not yet retired;
- Dr Shirley Abelman, retiring SANUM secretary, for her dedication;
- Professor David Eyre, retiring chairman of SANUM, for his able chairmanship;
- All chairpersons of sessions;
- Contributors both to the conference and to these proceedings.

Professor Colin J Wright  
Secretary, SANUM  
August 1993

# PARTICIPANTS - DEELNEMERS

R ANGUELOV	<i>Vista University</i>
G BALL	<i>Atomic Energy Corporation</i>
J BANASIAK	<i>University of Natal</i>
R A B BOND	<i>University of Natal</i>
D I CARSON	<i>University of Natal</i>
R COOLS	<i>Katholieke Universiteit Leuven, Belgium</i>
K CROUS	<i>Krygkor</i>
E DE KLERK	<i>Universiteit van Pretoria</i>
J M DE VILLIERS	<i>University of Stellenbosch</i>
P DU T FOURIE	<i>Universiteit van Stellenbosch</i>
L D ERASMUS	<i>Potchefstroomse Universiteit vir CHO</i>
D EYRE	<i>Potchefstroom University for CHE</i>
H GINGOLD	<i>West Virginia University</i>
H GOLDSTEIN	<i>University of Natal</i>
C GORDON	<i>University of the Witwatersrand</i>
K S GOVINDER	<i>University of Natal</i>
B K HAKIZUMWAMI	<i>University of the Witwatersrand</i>
S-W JHA	<i>National Central University, Taiwan</i>
M A E KAUNDA	<i>University of Cape Town</i>
A KNOPFMACHER	<i>University of the Witwatersrand</i>
J M KOZAKIEWICZ	<i>University of Zululand</i>
D P LAURIE	<i>Potchefstroomse Universiteit vir CHO</i>
P G L LEACH	<i>University of Natal</i>
R L LEMMER	<i>University of Natal</i>
D S LUBINSKY	<i>University of the Witwatersrand</i>
E MARÉ	<i>Nedbank</i>
L G MASHER	<i>University of the Witwatersrand</i>
D P MASON	<i>University of the Witwatersrand</i>
G M MOREMEDI	<i>University of the Witwatersrand</i>
D M MURRAY	<i>Somkon</i>
S PAHL	<i>University of the Witwatersrand</i>
N PENDOCK	<i>University of the Witwatersrand</i>
C H ROHWER	<i>University of Stellenbosch</i>
H C SCHUTTE	<i>Atomic Energy Corporation</i>
I H SLOAN	<i>University of New South Wales, Australia</i>
I M SNYMAN	<i>Krygkor</i>
A SOLOMON	<i>University of the Witwatersrand</i>
R W STEWART	<i>University of Natal</i>
L STEYN	<i>Gennan Stelsels</i>
P Y TABAKOV	<i>University of Natal</i>
E H A VENTER	<i>Potchefstroomse Universiteit vir CHO</i>
L M VENTER	<i>Potchefstroomse Universiteit vir CHO</i>
M WALKER	<i>University of Natal</i>
C J WRIGHT	<i>University of the Witwatersrand</i>



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