ELEVENTH SOUTH AFRICAN SYMPOSIUM ON NUMERICAL MATHEMATICS

PROGRAMME

Umhlanga Rocks
8, 9 and 10 July 1985

ELFDE SUID-AFRIKAANSE SIMPOSIUM OOR NUMERIESE WISKUNDE

PROGRAM

Umhlanga Rocks
8, 9 en 10 Julie 1985

ELEVENTH SOUTH AFRICAN SYMPOSIUM ON NUMERICAL MATHEMATICS

UMHLANGA ROCKS, 8-10 JULY 1985

VENUE:

The Hawaan Room and Lagoon Room
Breakers Resort Complex
88 Lagoon Drive (P.O. Box 75)
Umhlanga Rocks 4320
Telephone: (031) 512271

REGISTRATION:

8h30 - 9h00 on 8 July 1985 in the Lagoon Room.

REGISTRATION FEE:

R75 per person for members of SANUM, R85 for non-members, if paid before 17 May 1985. An additional R15 per person will be charged to those persons registering after that date. The registration fee covers summaries of papers to be presented, lunches, teas, and a cheese and wine party followed by a seafood braai.

PROCEEDINGS:

A booklet containing summaries of all papers presented at the Symposium will be distributed to all delegates. Selected papers will appear in full in a special issue of the Journal of Computational and Applied Mathematics.

CURRICULUM VITAE:

All speakers must submit a short curriculum vitae, for use by chairmen of sessions, when registering.

ENTERTAINMENT:

An informal cheese and wine party will be hosted by the University of Natal at 17h30 on Monday 8 July in the Lagoon Room. This will be followed by a seafood braai in the enclosed patio adjoining the Lagoon Room.

SANUM AGM:

This will take place at 16h45 on Tuesday 9 July in the Hawaan Room.

ENQUIRIES:

Ms. E.M. Carte
Computer Science
University of Natal
Durban 4001

Tel: (031) 816-1021

Dr. C.J. Wright
Applied Mathematics
University Witwatersrand
Johannesburg 2001

Tel: (011) 716-3923 (Work)
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ELFDE SUID-AFRIKAANSE SIMPOSIUM OOR NUMERIESE WISKUNDE

UMHLANGA ROCKS, 8-10 JULIE 1985

PLEK:

Die Hawaan Kamer en die Lagoon Kamer
Breakers Resort Complex
Lagoonrylaan 88 (Posbus 75)
Umhlanga Rocks 4320
Telefoon: (031) 512271

REGISTRASIE:

8h30 - 9h00 op 8 Julie 1985 in die Lagoon Kamer.

REGISTRASIEFOOI:

R75 per persoon vir SANUM lede en R85 vir nie-lede indien voor 17 Mei 1985 betaal. 'n Bykomende fooi van R15 per persoon sal van persone wat na dié datum registreer gehef word. Die fooi dek die onkoste van opsommings van referate wat gelewer word, middagetes, tee, en 'n kaas-en-wyn onthaal wat deur 'n seekosbraai gevolg sal word.

VERRIGTINGE:

Alle afgevaardigdes sal 'n boekie, waarin opsommings van al die referate wat gelewer sal word saamgevat is, ontvang. Van die voorgelegde artikels sal in geheel, na keuring, in 'n spesiale uitgawe van die Journal of Computational and Applied Mathematics gepubliseer word.

CURRICULUM VITAE:

Alle sprekers moet 'n kort curriculum vitae, wat deur die voorsitters van sessies gebruik kan word, met registrasie inhandig.

ONTHAAL:

Die Universiteit van Natal sal om 17h30 op Maandag 8 Julie 'n kaas-en-wyn onthaal in die Lagoon Kamer aanbied. Dit sal deur 'n seekosbraai op die aangrensende patio gevolg word.

SANUM AJV:

Dit sal om 16h45 op Dinsdag 9 Julie in die Hawaan Kamer plaasvind.

NAVRAE:

Mev. E.M. Carte
Rekenaarwetenskap
Universiteit Natal
Durban 4001

Tel: (031) 816-1021

Dr. C.J. Wright
Toegepaste Wiskunde
Universiteit Witwatersrand
Johannesburg 2001

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942-1939 (Huis)

TITELS VAN REFERATE - TITLES OF PAPERS

Alaylioglu, A. and Alaylioglu, H:		*A finite element program and its application to a four-span continuous bridge structure.*
Baart, M.L:		*Isoparametric-type transformations and rational curves.*
Benadé, G:		*Rates of approximation of functions by polynomials: weighted spaces and Markov-Bernstein inequalities.*
Bond, R.A.B:		*The method of lines - step width control and the global error series.*
Botha, J.F:		*The boundary collocation method.*
Christie, I:		*To be announced.*
Delic, G, Janse van Rensburg, E.J. and Welke, G:		*A non-self-adjoint general matrix eigenvalue problem.*
de Villiers, J.M. and Rohwer, C.H:		*Optimal local spline interpolants.*
du Plooy, A:		*'n Randelementmetode toegepas op 'n geoëlektriese probleem.*
Geveci, T:		*Error estimates for a mixed finite element method for the wave equation.*
Gragg, W.B:	a:	*Going around on circles.*
	b:	*Convergence of the unitary QR algorithm with Eberlein - Huang shift.*
Griffin, T.B. and Reddy, B.D:		*Finite element approximations of problems involving non-differentiable functionals.*
Herbst, B.M:		*The moving finite element method without penalty.*
Kok, B:		*Galerkin methods for the evolution elasticity equations for incompressible materials.*
Laurie, D.P:		*Conically exact methods for trajectory problems.*
Morris, J.Ll:		*To be announced.*
Lubinsky, D:		*Rational approximation via Hermite-Padé approximations.*

Maeder, A.J., Gupta, G.K. and Tischer, P.E:	a:	*ODE problem solver codes: a software engineering approach.*
Maeder, A.J. and Wynton, S.A:	b:	*Some parallel methods for polynomial root-finding.*
Maritz, M.F. and Schoombie, S.W:		*Ghost solutions and solitons.*
Martin, J.B:		*A bounding principle for the incremental solution of the equations of path dependent plasticity.*
Murray, D.M:		*The relationship between terminal state constraints and penalties for discrete LQP problems.*
Orlowska, M.E:		*An enumeration of the set of reasonable paths in the graph.*
Pretorius, L:		*Gauss-type quadrature formulas for spline functions.*
Riphagen, H.A. and Burger, A.P:		*Computational stability of generalized time integration schemes for a split weather prediction model.*
Rohwer, C.H. and de Villiers, J.M:		*One sided approximation with spline functions.*
Shampine, L.F:	a:	*Control of step size and order in extrapolation codes.*
	b:	*Efficient extrapolation methods for ODEs.*
Snyman, J.A:		*A parameter-free multiplier method for constrained minimization problems.*
Vermeulen, P:		*Obtaining an optimal value for an objective function with bounded linear programming coefficients.*
Weideman, J.A.C. and Herbst. B.M:		*Recurrence in numerical approximations of the nonlinear Schrödinger equation.*
Wright, C.J:		*Spline collocation applied to some singular perturbation problems.*
Yavin, Y:		*Two pursuers and one evader in the plane: a stochastic pursuit-evasion differential game.*
Ypma, T.J:		*Efficient estimation of sparse Jacobian matrices by differences.*
Zlobec, S:		*Numerical methods in input optimization.*