SANUM2000

South African Society for Numerical and Applied Mathematics

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Department of Applied Mathematics
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Organisers   Ben Herbst and Andre Weideman
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Titles of Talks

Nora Alexeeva (University of Cape Town, RSA)
Bound states of pulses in an excitable reaction-diffusion model for the NO+CO reaction on Pt surfaces

Roumen Anguelov (Vista University, RSA)
On the construction of nonstandard finite difference schemes

Igor Barashenkov (University of Cape Town, RSA)
Taming chaos with disorder

Nigel Bishop (University of South Africa, RSA)
Boundary conditions and stability in linearized gravitation theory

Johan de Villiers (University of Stellenbosch, RSA)
Building refinable functions from their values at the integers

Kevin Duffy (Technikon Natal, RSA)
Elephant research using simulation models

Karin Goosen (University of Stellenbosch, RSA)
Interpolatory subdivision schemes

Kesh Govinder (University of Natal, RSA)
The wonders of Mathematica

Jens Gravesen (Technical University of Denmark)
The geometry of the scroll compressor

Br.an Hahn (University of Cape Town, RSA)
Thoughts on teaching MATLAB as a first programming language

Ron Hacking (Technikon Natal, RSA)
Computational fluid kinematics

Dirk Laurie (Potchefstroom University for CHE, RSA)
Numerical methods for inverse eigenvalue problems

Fusen Lin (Oregon State University, USA)
Algorithms for selecting parameters in the direct integration method for inverting the Laplace Transform

Nil Mackey (Western Michigan University, USA)
The quaternion structure of real eigenproblems

Steve Mackey (Kalamazoo College, USA)
Spectral effects with quaternions

Pierre Malraison (Spatial Technology, USA)
Mathematics and Computer Aided Design: A Personal Retrospective

Peter Markowich (University of Vienna, Austria)
Difference Schemes for Schroedinger-type equations and Wigner transforms

Dana Murray (University of the Free State, RSA)
Approximation schemes in the evaluation of financial derivatives

Daya Reddy (University of Cape Town, RSA)
Error estimation in finite element analysis; theoretical and computational aspects

Carl Rohwer (University of Stellenbosch, RSA)
Nonlinear Multiresolution Analysis

Stephan Ruscheweyh (Wuerzburg University, Germany)
Descent methods for solving polynomial equations

Schalk Schoombie (University of the Free State, RSA)
Playing the evolution game

Dave Sloan (Strathclyde University, Scotland)
On numerical solution of PDEs using adaptive methods based on equidistribution

Eugene Stipp and Jan van Vuuren (University of Stellenbosch, RSA)
The computation of lower bounds for Ramsey numbers

Jan Snyman (University of Pretoria, RSA)
Mathematical optimization applied to engineering design problems

Willie Theron (University of Stellenbosch, RSA)
The hopping hoop (continued)

Adrian Thomasset (University of Stellenbosch, RSA)
Subdivision of surfaces: The loop scheme

Maleafisha Tladi (University of Cape Town, RSA)
Adiabatic chaos and transport in mesoscale vortices

David Trubatch (University of Colorado, USA)
Integrable discretization of the vector nonlinear Schrodinger equation

Alna van der Merwe (University of Pretoria, RSA)
Existence results for general vibration models

Nic van Rensburg (University of Pretoria, RSA)
General linear vibration models

Lizette Zietsman (University of South Africa, RSA)
A numerical study of the vibrations of a plate beam model. Application of the finite element method