Dr. Abdelhameed Mohamed Abdelhameed Nagy Abdo   18-1-2014

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Benha University (P.O. 13518) - Egypt

Personal Data:

First Name: Abdelhameed   Family Name: Nagy Abdo

Date of Birth: 4. 8. 1981   Place of Birth: Beheira-Egypt

Nationality: Egyptian   Sex: Male

Martial Status: Married (3 children)

Education:

B.Sc. Mathematics, Faculty of Science, Benha University, 2002.

M.Sc. Mathematics, Faculty of Science, Benha University, Preliminary year 2003.

M.Sc. Mathematics, Faculty of Science, Benha University, 2007.
Thesis: On the Numerical Solutions of Ill-Posed Problems.
Supervisor: Prof. Nasser Hassen Sweilam

Ph.D. Mathematics, Università Degli Studi Di Bari Aldo Moro, 2012.
Thesis: Numerical Solution of Stiff and Singularly Perturbed Problems for Ordinary
Differential and Volterra-type Equations.
Supervisor: Prof. Francesca Mazzia

Employment Experience:

-Demonstrator in the Department of Mathematics, Faculty of Science, Benha
  University, Egypt, 2003.
-Assistant Lecturer in the Department of Mathematics, Faculty of Science, Benha
  University, Egypt, 2007.
-Lecturer in the Department of Mathematics, Faculty of Science, Benha

University, Egypt, 2012.

Languages:

Arabic, English.

Researcher Interests:

Numerical solution of ill-posed problems, Numerical solution for solving linear and nonlinear differential equations, Optimization, Image processing.

Conferences and Courses attended:

8th International conference on parametric optimization and related topics, Cairo-Egypt, November 27- December 1, 2005.

International conference on mathematical analysis and its applications (ICMAA 2006), Assiut-Egypt, 3-6 January 2006.

Course: Scientific and Technical Computing in Fortran 95, CASPUR - HPC Department, Rome-Italy 12-14 January 2010.

Course: MATLAB for Scientific Computing, CASPUR - HPC Department, Rome-Italy 20-21 October 2010.

6th Workshop, Structural Dynamical System: Computational Aspects, (SDS2010), Hotel Porto Giardino, Capitolo, Monopoli, Italy, 8-11 June 2010.

Workshop "Theory and Numerics of Differential Equations", Department of Mathematics, University of Bari, Italy, 3 - 6 October 2011.

"CIME summer school that held in Cetraro (Italy)", from 27-6-2011 to 1-7-2011.

Professional Project List

"Modellazione e simulazione di sistemi evolutivi per il controllo di dispos itivi meccatronici" from 17-5-2010 to 16-11-2010 for project "Sensori e microlavorazioni laser per applicazioni motoristiche e manifatturiere" .

Mathematical Modelling of Genetic Regulatory Networks in Bacterial and Higher Eukaryotic Cells, between Laboratory of Radiation Biology of Joint Institute for Nuclear Research and Cairo University, from 26-11-2012 to 07-12-2012.

A. M. Nagy

Mathematical Modelling of Genetic Regulatory Networks in Bacterial and Higher Eukaryotic Cells, between Laboratory of Radiation Biology of Joint Institute for Nuclear Research and Cairo University, from 25-08-2013 to 31-08-2013.

Scientific Software:

MATLAB, FORTRAN.

Publications:

[1] N. H. Sweilam and **A. M. Nagy**, Numerical studies on dynamical systems method for solving ill-posed problems, *Australian Journal of Mathematical Analysis and Applications,* Vol. 4, No. 1, 1-7, 2007.

[2] M. Abd El-Azeem, N. H. Sweilam, M. M. Gobashy, **A. M. Nagy**, Two Dimensions Gravity Inverse Problem Using Adaptive Pruning L-Curve Technique, *Bull. Sci., Cairo Univ.* Vol. 75(A): 93-115, 2007.

[3] N. H. Sweilam, **A. M. Nagy** and M. H. Alnasr, Efficient dynamical systems methods for solving singularly perturbed integral equations with noise, *Computers and Mathematics with Applications,* Vol. 58, 1418-1424, 2009.

[4] F. Mazzia, **A. M. Nagy**, Stiffness detection strategy for explicit Runge Kutta methods, AIP Conference Proceedings, 1281 (1), 239-242, 2010.

[5] N. H. Sweilam, M. M. Khader and **A. M. Nagy**, Numerical solution of two-sided space fractional wave equation using finite difference method, *Journal of Computational and Applied Mathematics.* Vol. 235, 2832-2841, 2011.

[6] N. H. Sweilam, **A. M. Nagy**, Numerical solution of fractional wave equation using Crank-Nicholson method, *World Applied Sciences Journal (WASJ)* , Vol. 13, 71-75, 2011.

[7] J. R. Cash, D. Hollevoet, F. Mazzia and **A. M. Nagy**, The MATLAB code `bvptwp.m` for the numerical solution of two point boundary value problems , *ACM Transactions on Mathematical Software*, Vol. 39 (2), 2013.

[8] F. Mazzia and **A. M. Nagy**, Solving Volterra integro-differential equations by variable stepsize block BS methods: properties and implementation techniques, submit

References:

1. Prof. Francesca Mazzia (Supervisor),
   Bari University, ITALY, mazzia@dm.uniba.it
2. Prof. Nasser Hassen Sweilam (Supervisor),
   Cairo University, Egypt, n_sweilam@yahoo.com
3. Prof. L. F. Abdelal (Supervisor),
   Cairo University, Egypt, zozadondon2002@yahoo.com

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