

الإنجازات البحثية لأعضاء هيئة التدريس بالقسم

Dr NASSER ANWAR ABDUL ALIM

- [1] Mahmoud, M. A. W. and Abdul Alim, N. A. (2002) On testing exponentiality against nbarfr life distributions. STATISTICA, anno LXII, n, 4, pp599-610
Mahmoud, M. A. W. and Abdul Alim, N. A. (2003). On testing exponentiality against NBURFR class of life distributions, International Journal of Reliability and Applications, Vol 4, No 2, pp 57-69.
- [2] Mahmoud, M. A. W. and Abdul Alim, N. A. (2004) A Moment inequalities of NBURFR and NBARFR classes with hypotheses testing applications International Journal of Reliability and Applications, Vol2, No 1, pp 189-196.
- [3] Mahmoud, M. A. W. and Abdul Alim, N. A (2008) "A goodness of fit approach to NBUFR and NBARFR classes" International Journal of Reliability and Applications, Vol. 9, No. 1, pp.
- [4] Mahmoud, M. A. W. and Abdul Alim, N. A. "A Goodness to Fit Approach to NBURFR and NBARFR Classes "Economic Quality Control, Vol 21 (2006), No.1 59, 75.
- [5] S.M.EL-ARISHY, N. A. Abdul Alim and L.S.DIAB Testing NRBU class of life distributions using a goodness of fit approach Journal of Reliability and Applications, Vol 7, (2006) ,No 2, pp 141-153.
- [6] M. A. W. Mahmoud , N. A. Abdul Alim and L.S.DIAB. Some concepts and testing hypothesis for new class of life distribution [NBURFR-] , Economic Quality Control, Vol 24 (2009), No.1 87, 99
- [7] N. A. Abdul Alim "The New Better Than Used in Failure Rate Class at Specific Time" (send for publication)

DR MAHMOUD HASSAN SHEHATA

- [1]. THE MELTING PROCESS WITH MOVING BOUNDARY FOR MIXTURE CONSISTING OF TO FLUIDS, M. R. ABD. EL-SALAM and M. H. SHEHATA Int. J. Engng Sci. Vol. 36. No. 5/6, pp. 625-634, 1998

- [2]. Coordinate transformation and implicit time discretization for diffusion in glassy poly, M. R. ABD. EL-SALAM and M. H. SHEHATA, Applied Mathematics and Computation 113 (2000) 199-218

DR HEDI ELMONSER

- [1]. Elements of harmonic analysis related to the third basic zero order Bessel function, J. Math. Anal. Appl., 342, No. 2, 1203-1219, (2008).
- [2]. Uncertainty principle for the basic Bessel transform, , Ramanujan J. (2009) 18: 171-182. DOI 10.1007/s 11139-007-9117-6.
- [3]. Relationship between characterizations of the q -Gamma: journal of inequalities and Special Functions Volume 3 Issue 4(2012), Pages 50-58.
- [4] On some QI type inequalities using fractional Q -integral: Mathematical Analysis and Applications Volume 4 Issue 4 (2012.), Pages 1-7
- [5] Inequalities related to the third Jackson's q -Bessel function of order zero: Submitted.
- [6] q -Bessel Fourier Transform and variation diminishing kernel: submitted
- [7]. Analogue of the Wielandt's Theorem about the q -gamma function: Submitted
- [8]. q -Gauss and q -Chebyshev's fractal integral inequalities: Submitted

Current works

- [1]. Alzer inequality for the q -Gamma function.

DR TAHAR MOUMNI

- [1] A. Karoui and T. Moumni, New efficient methods for computing the prolate spheroidal wave functions and their associated eigenvalues, Appl. Compt. Harmon. Anal. 24, (2008), 269-289.
See here: <http://www.sciencedirect.com/science/article/pii/S1063520307000668>
- [2] A. Karoui and M. Tahar, Spectral Analysis of the Finite Hankel Transform Operator and Circular Prolate Spheroidal Wave Functions, Journal of Computational and Applied Mathematics 233 (2009) 315-333.
See here: <http://www.sciencedirect.com/science/article/pii/S0377042709004245>
- [3] T. Moumni and A. Karoui, Fourier and Hankel bandlimited signal recovery, Integral Transforms and Special Functions Vol. 21, No. 5, May 2010, 337-349.
See here: <http://www.tandfonline.com/doi/abs/10.1080/10652460903286223#preview>
- [4] T. Moumni, On essentially time and Hankel bandlimited signals, Integral Transforms and Special Functions. Volume 23, Issue 2, 2012, 83-95
See here:

<http://www.tandfonline.com/doi/abs/10.1080/10652469.2011.560116>

[5] A. Karoui and I. Mehrzi and T. Moumni, Eigenfunctions of the Airy's integral transform: Properties, numerical computations and asymptotic behaviors. Journal of Mathematical Analysis and Applications, Volume 389, Issue 2, 15 May 2012, Pages 989–1005
See here: <http://www.sciencedirect.com/science/article/pii/S0022247X1101153X>

[6] H. Ben Aouicha and M. Tahar, On the spectrum of the finite Laplace transform and applications, Applicable Analysis and Discrete Mathematics 2012 Volume 6, Issue 2, Pages: 304-316

See here:

<http://www.doiserbia.nb.rs/Article.aspx?id=1452-86301200019B&AspxAutoDetectCookieSupport=1#>

[7] Tahar Moumni and Ahmed I. Zayed; Sampling with the use of Generalized prolate spheroidal wave functions, Submitted

[8] On the one generalized prolate spheroidal wave functions,
)Submitted), (joint work with Hichem Ben Aouicha)

[9] On the inversion of finite Mellin transform and application.

Current works :

[1] On the one generalized prolate spheroidal wave functions: The discrete case

[2] On the one generalized oblate spheroidal wave functions and applications
joint work with Ammari Amara

DR REHAB M. EI SHIKH

[1]. M.H.M. Moussa, Rehab M. El Shikh ,” Similarity Reduction and similarity solutions of Zabolotskay–Khoklov equation with a dissipative term via symmetry method” Physica A 371 (2006) 325–335

[2]. M. H. M. Moussa, Rehab M. El Shikh, “Auto-Bäcklund transformation and similarity reductions to the variable coefficients variant Boussinesq system”, Physics Letters A 372 (2008) 1429–1434

[3]. M. H. M. Moussa, Rehab M. El Shikh,” Two Applications of the Homogeneous Balance Method for Solving the Generalized HirotaSatsuma Coupled KdV System with Variable Coefficients”, International Journal of Nonlinear Science 7 (2009).29-38.

- [4] E. M. El Gazzy, M. H. M. Moussa , Rehab M. El Shikh, "New Similarity Reductions and Exact Solutions of the Coupled KdV Equations with Variable Coefficients", International Journal of Nonlinear Science 7 (2009) 475-4.
- [5]- M.H. M. Moussa , Rehab M. El-Shiekh, "Auto-Bäcklund Transformation and Modified F-expansion Method to Find New Exact Solutions for the Variable Coefficients Generalized Zakharov-Kuznetsov Equation", International Journal of Nonlinear Science 10 (2010) 70-76.
- [6]- M.H. M. Moussa , Rehab M. El-Shiekh, "Similarity Solutions for Generalized Variable Coefficients Zakharov–Kuznetsov Equation under Some Integrability Conditions", Commun. Theor. Phys. 54 (2010) 603-606.-6-
- [7]- M. H. M. Moussa , Rehab M. El-Shiekh, "Direct reduction and exact solutions for the generalized variable coefficients 2D KdV equation under some integrability conditions" , Commun. Theor. Phys. 55 (2011) 551–554.
- [8]- Rehab M. El-Shiekh, "New Application for G'/G -expansion Method on the Variable Coefficient Variant Boussinesq System", International Journal of Nonlinear Science 10 (2010) 212-216.
- [9]- G. M. Moatimid, Rehab M. El –Shiekh, Abdul-Ghani A. A. H. AlNowehy, Modified Kudryashov Method for Finding Exact Solutions of the (2+1)-Dimensional Modified Korteweg-De Vries Equation and Nonlinear Drinfeld-Sokolov System, American Journal of Computational and Applied Mathematics.1 (2011) 101-104.
- [10]- M.H.M. Moussa, R.A.K. Omar, Rehab M. El-Shiekh, and H.R. ElMelegy, Nonequivalent Similarity Reductions and Exact Solutions for Coupled Burgers-Type Equations, Commun. Theor. Phys. 57 (2012) 1–4-7-
- [11]- Rehab M. El –Shiekh, New exact solutions for the variable coefficient two-dimensional Burger equation, American Journal of Computational and Applied Mathematics. 2 (2012) 101-104.
- [12]- Rehab M. El –Shiekh, New Exact Solutions for the VariableCoefficient Modified KdV Equation Using Direct Reduction Method, mathematical methods in applied science, (2012)<http://onlinelibrary.wiley.com/doi/10.1002/mma.2561/abstract>