

Curriculum Vitae

Dr. Mansour Mahmoud Abd Elkhalek
Mansoura Univesity
Faculty of Science – Mathematics Department
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1- Contact:

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2- Personal:

Citizenship : Egyptian.

Date of birth : 1-1-1974.

Place of birth : Talkha-Dakahlia-Egypt.

Social status : Married.

Number of children : Three.

Sex : Male.

3- Higher Education:

- B.Sc. in Mathematics (1995)

Grade: Excellent with Honor degree.

- Post graduate studies in Mathematics (1996)
courses in pure Mathematics of M.Sc.

- M.Sc. in Mathematics (1999)
title: " Q-Group and Q-Deformation of Lie superalgebra".

- Ph.D in Mathematics (2004).
title: "Quantum groups approach to q-special functions"

4- Conferences:

- Conference of Mathematics And The 21st Century
Cairo - Egypt, 15-20 Jan 2000.
- Summer School and Conference on Dynamical Systems, The
Abdus Salam Ictp Trieste - Italy, 19 July- 6 August 2004.

- Summer School and Conference on Non-Commutative Geometry, The Abdus Salam Ictp Trieste - Italy, 9 - 27 August 2004.
- Southern Network for Theoretical Physics and Related Topics 1st Meeting National Center for Nuclear Science and Technology - Tunis, 20 - 22 May 2005.

5-Membership of Professional Institutions

- Egyptian Mathematical Society

6- Academic Responsibilities:

- Demonstrator of Mathematics, Mansoura University, Faculty of Science, Mathematics Department, Egypt (1995-1999).
- Lecturer of Mathematics, Mansoura University, Faculty of Science, Mathematics Department, Egypt (1999-2004).
- Assistant Prof. of Mathematics, Mansoura University, Faculty of Science, Mathematics Department, Egypt (2004-2005).
- Assistant Prof. of Mathematics, King Khaled University, Faculty of Science, Mathematics Department, Saudi Arabia (2005-2009).
- Assistant Prof. of Mathematics, King AbdulAziz University, Faculty of Science, Mathematics Department, Saudi Arabia (2009-2010).
- Associate Prof. of Mathematics, King AbdulAziz University, Faculty of Science, Mathematics Department, Saudi Arabia (2010-2016).
- Associate Prof. of Mathematics, Mansoura University, Faculty of Science, Mathematics Department, Egypt (2016- until now).

8- List of Publications:

- 1 A. Hegazi and M. Mansour, Quantum Group structure of Lie superalgebra $Osp(1/2)$, International Journal of Theoretical Physics, Vol.38, No 10, (1999) 2695-2705.
- 2 A. Hegazi and M. Mansour, Some Special function of non-commuting variables, International Journal of Theoretical Physics, Vol. 41, No. 9, (2000) 1835-1845.
- 3 E. Ahmed, A. Hegazi and M. Mansour, Quantum Group Approach to q-Special Functions, International Journal

of Theoretical Physics, Vol.39, No 1,(2000) 41-45.

- 4 A.Hegazi and M. Mansour, Irreducible Representation of the Quantum Group $Eq(2)$, Chaos, Solitons and Fractals, Vol. 12, No. 9, (2001), 1687-1692.
- 5 A. Hegazi and M. Mansour, Two-parameter quantum deformation of Lie superalgebra, Chaos, Solitons and Fractals, 12(2001) 445-452.
- 6 A. Hegazi and M. Mansour, Generalized q -modified Laguerre Functions, International Journal of Theoretical Physics, Vol. 41, No.9,(2002)1823-1833.
- 7 A. Hegazi and M. Mansour, A weight function point of view of q -difference equations of the q -hypergeometric polynomial, International Journal of Theoretical Physics, Vol. 43, No. 1, (2004) 237- 250.
- 8 A. Hegazi and M. Mansour, A note on q -Bernoulli numbers and polynomials, Journal of Nonlinear Mathematical Physics, Vol. 13, No. 1, (2006) 9-18.
- 9 M. Mansour, An asymptotic expansion of the q -gamma function, J. of Nonlinear Mathematical Physics, Vol. 13, No. 4, (2006) 479-483.
- 10 M. Mansour, Bounds of q -Euler reflection formula, Far East Journal of Mathematical Sciences, Vol. 29, No. 3, (2008) 685-692.
- 11 M. Mansour, Determining $\Gamma_q(x)$ by functional equations, Far East Journal of Mathematical Sciences, Vol. 29, No. 3, (2008) 693-699.
- 12 A. Hegazi, W. Morsi and M. Mansour, Differential Calculus on Hopf Group Coalgebra, Note di Matematica, Vol 29, Issue 1, 1-40, 2009.

- 13 M. Mansour, A family of sequences related to an asymptotic expansion of the q-gamma function, *International Journal of Mathematical Analysis*, Vol. 3, No. 23, (2009) 1131-1137.
- 14 M. Mansour, Determining the k-generalized Gamma function $\Gamma_k(x)$ by functional equations, *International Journal of Contemporary Mathematical Sciences*, Vol. 4, No. 21, (2009) 1037-1042.
- 15 M. Mansour, Note on Stirling's formula, *International Mathematical Forum*, Vol. 4, No. 31, (2009) 1529-1534.
- 16 M. Mansour, Incomplete q-Gamma function and Tricomi expansion, *Journal of Nonlinear Mathematical Physics*, Vol. 16, No. 2, (2009) 141-150.
- 17 M. Mansour and M. A. Obaid, A generalization of some inequalities for the log-convex functions, *International Mathematical Forum*, 5, 2010, no. 65, 3243 - 3249.
- 18 M. Mansour and M. A. Obaid, Bounds of q-factorial $[n]q!$, *Ars Combinatoria*, Vol. CII, 313-319, 2011.
- 19 M. Mansour, M. A. Alghamdi and Ravi P Agarwal, New upper bounds of $n!$, *Journal of Inequalities and Application*, 2012, 2012:27.
- 20 M. Mansour and M. A. Obaid, On a new Stirling's series, *Ars Combinatoria*, Vol. 107, 411- 418, 2012.
- 21 M. F. Elettrey and M. Mansour, On Cournot dynamic multi-team game using Puu's incomplete information dynamical, *Applied Mathematics and Computation* vol. 218 issue 21 July 1, 2012. p. 10691-10696.
- 22 M. Mansour, M. M. El-Dessoky and E. M. Elsayed, The Form of the Solutions and Periodicity of Some Systems of Difference Equations, *Discrete Dynamics in Nature*

and Society Volume 2012, Article ID 406821, 17 pages.

- 23 M. Mansour and M. M. Al-Shomrani, New q-analogue of modified Bessel function and the quantum algebra Eq(2), J. Computational Analysis and Applications, Vol. 15, No. 4, 655-664, 2013.
- 24 M. Mansour, M. M. El-Dessoky and E. M. Elsayed, On the solution of rational systems of difference equations, J. Computational Analysis and Applications, Vol. 15, No.5, 967-976, 2013.
- 25 M. Mansour, M. M. El-Dessoky and E. M. Elsayed, " Solution of fractional systems of difference equations " Ars Combinatoria, Volume CX, July, 2013, 469- 479.
- 26 M. Mansour, Generalized q-Bessel function and its Properties, Advances in Difference Equations 2013 2013:121.
- 27 M. M. El-Dessoky , M. Mansour and E. M. Elsayed, Solutions of some rational systems of difference equations, Utilitas Mathematica, 92 (2013), 329-336.
- 28 M. Mansour, On quicker convergence towards Euler's constant, J. Computational Analysis and Applications, Vol. 17, No.4, 632-638, 2014.
- 29 Mansour Mahmoud, On the functional equations of the q-Gamma function, Aequationes Mathematicae, Springer Basel 2014, DOI 10.1007/s00010-014-0291-5.
- 30 Mansour Mahmoud, A new proof of an inequality for the logarithm of the gamma function and its sharpness, Turkish Journal of Analysis and Number Theory, Vol. 2, No. 4, 147-151, 2014.
- 31 M. Mansour, Refinement of some inequalities of q-gamma function, J. Computational Analysis and Applications, Vol. 18, No.4, 645-654, 2015.

- 32 Mansour Mahmoud, q-Wallis inequality, J. Computational Analysis and Applications, Vol. 19, No.6, 994-1002, 2015.
- 33 Mansour Mahmoud, On a conjecture of double inequality for the tangent function, Hacettepe Journal of Mathematics and Statistics, Volume 45 (1), 43 – 48, 2016.
- 34 Mansour Mahmoud and Ravi P. Agarwal, Bounds for Bateman's G-function and its applications, Georgian Mathematical Journal, To appear 2016.
- 35 Mansour Mahmoud and Ravi P. Agarwal, Hermite's formula for q-Gamma function, Mathematical Inequalities & Applications, Volume 19, Number 3, 841–851, 2016.
- 36 Feng Qi, Mansour Mahmoud, Xiao-Ting Shi, and Fang-Fang Liu, Some properties of the Catalan-Qi function related to the Catalan numbers, SpringerPlus (2016), 5:1126, 20 pages.
- 37 Feng Qi and Mansour Mahmoud, Some properties of a function originating from geometric probability for pairs of hyperplanes intersecting with a convex body, Mathematical and Computational Applications 2016, 21, 27; doi:10.3390/mca21030027.
- 38 Mansour Mahmoud and Feng Qi, Three identities of the Catalan-Qi numbers, Mathematics 2016, 4, 35; doi:10.3390/math4020035.
- 39 Mansour Mahmoud and Hanan Almuashi, On some inequalities of the Bateman's G-function, Journal Computational Analysis and Applications, Vol. 22, No. 4, 672-683, 2017.
- 40 Feng Qi, Xiao-Ting Shi, Mansour Mahmoud, and Fang-Fang Liu, The Catalan numbers: a generalization, an exponential representation, and some properties, Journal of Computational Analysis and

Applications 22 (2017), in press.

- 41 **Mansour Mahmoud**, Ahmed Talat and Hesham Moustafa, Some approximations of the Bateman's G-function, Journal of Computational Analysis and Applications (2017), in press.

9- Current Ph.D Students:

- 1- Hanan Almuashi (KSA).
- 2- Hesham Moustafa (Egypt).

9- Research interests:

- 3- Mathematical Inequalities.
- 4- Special functions and q- Special functions.

10- Training

Access to 5 cycles for the development of the capacity of members of the faculty of University Development Center, Mansoura University, namely:

- (I) Quality Assurance and Accreditation
- (II) credit hours
- (III) the decision and design methodology
- (IV) the preparation of writing scientific research and dissemination of internationally
- (V) Effective Presentation Skills

11- Other activities:

1. The workshop of mission and goals of the strategic plan second five-year Faculty of Science, King Abdul Aziz University - Saudi Arabia, May 9, 2011.
2. Quality standards and accreditation, Center for Development of university education - King Abdul Aziz University - Saudi Arabic Saudi Arabia, 2-3 October 2011.
3. Member of the Commission Strategic Plan, Department of Mathematics - Faculty of Science, King Abdul Aziz University - Saudi Arabia 2011-2015.

**4. Member of the Commission for Academic Accreditation,
Department of Mathematics - Faculty of Science, King Abdul Aziz
University - Saudi Arabia 2011-2016.**