

Research Group 1

Group Name	Complex Analysis
Academic Year	2021

Basic Information	
Department	Mathematics
Location	Sohag Univesity

Group Members				
No. of Prof.	No. of Ass. Prof.	No. of Lect.	No. of Ass. Lect. & Demonst.	
2	-	-	1	

Staff members					
#	Name	Scientific degree	e-mail	Specializations	C.V
1	Zenhom Mahmoud Gomaa Kishka	Professor	zainhomkiska@yahoo.com	Complex Analysis	https://scholar.google.com/citations?user=Ni2It2IAAAAJ&hl=en
2	Mahmoud Abul-Ez	Professor	mabulez56@hotmail.com	Complex Analysis	https://scholar.google.com/citations?user=k2Dw7zsAAAAJ&hl=ar
Ass. Lecturers & Demonstrators					
#	Name	Scientific degree	e-mail	Specializations	
3	Ali Mohammed Youssef	Instructor	alimohammedyouseuf@yahoo.com	Complex Analysis	https://www.scopus.com/authid/detail.uri?authorId=57219533618

Theses produced by the Lab			
M. Sc Thesis			
#	Name	Title	Approval date
1	Ali Mohammed Youssef Ahmed	Advanced Studies on Some Higher Transcendental Functions With Some Applications	29/12/2021
2			
Ph.D. Thesis			
#			
1			
2			

Articles produced by the Lab		
#	Title	Journal information
1	<u>Stability analysis of humoral immunity HIV infection models with RTI and discrete delays</u>	<i>International Journal of Dynamics and Control</i> , 2017, 5(3), pp. 811–831
2	<u>The growth of generalized Hadamard product of entire axially monogenic functions</u>	<i>Hacettepe Journal of Mathematics and Statistics</i> , 2018, 47(5), pp. 1231–1239
3	<u>On the construction of generalized monogenic Bessel polynomials</u>	<i>Mathematical Methods in the Applied Sciences</i> , 2018, 41(18), pp. 9335–9348
4	<u>Analytical approximations to nonlinear oscillation of nanoelectro-mechanical</u>	<i>European Physical Journal Plus</i> , 2019, 134(1), 47

	<u>resonators</u>	
5	<u>Further Results on the Inverse Base of Axially Monogenic Polynomials</u>	<i>Bulletin of the Malaysian Mathematical Sciences Society</i> , 2019, 42(4), pp. 1369–1381
6	<u>On the fractional order Rodrigues formula for the shifted Legendre-type matrix polynomials</u>	<i>Mathematics</i> , 2020, 8(1), 136
7	<u>On the Growth Order and Growth Type of Entire Functions of Several Complex Matrices</u>	<i>Journal of Function Spaces</i> , 2020, 2020, 4027529
8	<u>An accurate analytical solution to strongly nonlinear differential equations</u>	<i>Applied Mathematics and Information Sciences</i> , 2020, 14(1), pp. 141–149
9	<u>Criteria in Nuclear Fréchet Spaces and Silva Spaces with Refinement of the Cannon-Whittaker Theory</u>	<i>Journal of Function Spaces</i> , 2020, 2020, 8817877
10	<u>On the representation of monogenic functions by the product bases of polynomials</u>	<i>Filomat</i> , 2020, 34(4), pp. 1209–1222
11	<u>Some results on the first Appell matrix function $F_1(A, B, B', C; z, w)$</u>	<i>Linear and Multilinear Algebra</i> , 2020, 68(2), pp. 278–292
12	<u>Fractional order of Legendre-type matrix polynomials</u>	<i>Advances in Difference Equations</i> , 2020, 2020(1), 506
13	On conformable fractional Legendre polynomials and their convergence properties with applications	<i>Alexandria Engineering Journal</i> , 2020, 59(6), pp. 5231–5245
14	<u>Further study on the conformable fractional gauss hypergeometric function</u>	<i>AIMS Mathematics</i> , 2021, 6(9), pp. 10130–10163

15	Analytical study of the vibrating double-sided quintic nonlinear nano-torsional actuator using higher-order Hamiltonian approach	<i>Journal of Low Frequency Noise Vibration and Active Control</i> , 2021
16	<u>Highly accurate analytical solution for free vibrations of strongly nonlinear Duffing oscillator</u>	<i>Journal of Low Frequency Noise Vibration and Active Control</i> , 2021
17	Analytical accurate solutions of nonlinear oscillator systems via coupled homotopy-variational approach	<i>Alexandria Engineering Journal</i> , 2021
18	<u>Further Developments of Bessel Functions via Conformable Calculus with Applications</u>	<i>Journal of Function Spaces</i> , 2021, 2021, 6069201
19	<u>The algebraic theory of matrix of matrices polynomials</u>	<i>Analele Stiintifice ale Universitatii Al I Cuza din Iasi - Matematica</i> , 2021, 67(1), pp. 71–84