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Personal Information

Name Badradeen Abaker Abdalrahman Adam.

Date of Birth 11/6/1983.

Place of Birth Sudan - Elgadarif.

Nationality Sudanese.

Marital Status Married with three daughters (Aisha, Doha, and Amal).

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Education

2012 - 2016 **Ph. D in Applied Mathematics**, Northwest Normal University, Faculty of Mathematical & Statistical, P R of China.

Title of PhD thesis '**Nonlinear Instability and Asymptotic Stability of Volume-Filling Chomotaxis Models**'

2009 - 2011 **M Sc in Industrial & Computational Mathematics**, University of Khartoum, Faculty of Mathematical Science, Sudan.

Title of M Sc thesis '**Shooting Method in Solving Boundary Value Problem**'

2001 - 2006 **Bachelor of Science & Education (Honors) in Mathematics & Physics.** University of Khartoum, Faculty of Education, Sudan.

1998 - 2001 Deim Bakr Secondary School, Elgadarif, Sudan

1989 - 1998 A baker Jebreel Basic School, Elgadarif, Sudan.

Research Interests

My research interests are: Partial Differential Equations (Analysis), Keller-Segel Chemotaxis model, Turing Patterns, Mutualistic diffusive model, Malaria model transmission, and Fast Fourier Transform Method or Fast Pade Transform.

Work Experience

Mar 2022-Present **Assistant Professor**, Department of Mathematics, Faculty of Education, University of Khartoum, Sudan.

Dec 2020 – Feb 2022 **Head Department of Continuing Education**, Faculty of Technological & Developmental Studies, University of Khartoum, Sudan.

Dec 2019- Dec 2020 **Assistant Professor and Secretary of the Academic Office**, Faculty of Education, University of Khartoum, Sudan.

2017 - Nov 2019 **Postdoctoral in Applied Mathematics**, Yangzhou University, Faculty of Mathematical Science, P R China.

Title of postdoctoral report '**Study on a Mutualistic Model in heterogeneous and periodic evolving Environment**'

2016 - Sep 2017 **Assistant Professor**, Department of Mathematics, Faculty of Education, University of Khartoum, Sudan.

2012- June 2016 **Lecturer**, Department of Mathematics, Faculty of Education, University of Khartoum, Sudan.

2011-May 2012 **Part- Time Teaching Assistant**, Department of Mathematical Engineering, Faculty of Engineering, University of Khartoum,

University of Khartoum, Sudan.

2011- Au 2012 **Part – Time Teaching Assistant**, Faculty of Architecture,

University of Khartoum, Sudan.

2009- Mar 2012 **Teaching Assistant**, Department of Mathematics

Faculty of Education, University of Khartoum, Sudan.

2008-Februry 2009 **Part – Time Teaching Assistant**, Department of Mathematics,
Faculty of Education, University of Khartoum, Sudan.

Teaching Experience

Since 2011, I have taught the following undergraduate courses:

- Calculus I, II.
- Analytical geometry
- PDEs.
- Differential Equations I, II.
- Linear Algebra.
- Complex Analysis.
- Vectors Analysis.
- Computer Programming using Matlap.
- Applied Statistic.

Schools, Workshops and Conferences

November 2020 Expertise France-France Education International” Pre-Service Teacher
Training component of EQUIP Programme”, Khartoum, Sudan.

October 2017 Seminar on Nonlinear Partial Differential Equations for Young
Scholars, Nanjing University of Finance & Economics, Nanjing,
China.

February 2017 AIMS-IWR Summer School “Mathematical Modelling and Scientific
Computing” AIMS Capetown, South Africa.

June 2014 International Conference on Nonlinear and Multiscale Partial Differential Equations, Shanghai Jiao Tong University, Shanghai, China (attendance).

September 2013 International Conference on Nonlinear and Multiscale Partial Differential Equations -Theories and Applications, Fudan University, Shanghai , China (attendance).

Feb 2012 The third conference for postgraduate studies and scientific research, University of Khartoum, Sudan (attendance).

Scholarships, Grants and Prizes

2004 -2005 Academic excellence prize Mathematics Science, Faculty of Education, Khartoum University.

Computer skills

Languages Python.

Packages MATLAB.

Tools Microsoft OfficeTM , Latex.

Languages

Arabic **Fluent**

English **Very good command**

Chinese **HSK Level 4**

Publications

1. **Adam, Badradeen**, Tarboush, Abdelrazig K; Lin, Zhigui; Asymptotic profile of a mutualistic model on a periodically evolving domain, International Journal of Biomathematics, (2019), doi:[10.1142/S1793524519500785](https://doi.org/10.1142/S1793524519500785) . **(SCI)**.
2. Liqiong Pu, **Badradeen Adam**, Zhigui Lin, Extinction in a nonautonomous competitive system with toxic substance and feedback control, (2019), 1838-1854. **(SCI)**.

3. **Adam, Badradeen**; Lin, Zhigui; Tarboush, Abdelrazig K.; Coexistence in a mutualistic model with cross-diffusion in a heterogeneous environment. *Int. J. Biomath.* 11 (2018), no. 6, 1850078, 17 pp. (**SCI**).
4. Fu, Shengmao; Guangjian Huang; **Adam, Badradeen** , Instability in a generalized multi-species Keller–Segel chemotaxis model, *Computers & Mathematics with Applications*, 9 (2016), 2280-2288. (**SCI**).
5. **Adam, Badradeen AA**; A Comparative Study of Successive Approximations Method and He-Laplace Method, *British Journal of Mathematics & Computer Science*, 2 (2015), 129.
6. **Adam, Badradeen AA**; A Comparative Study of Adomain Decompostion Method and He -Laplace Method, *Applied Mathematics*, 21 (2014), 3353.
7. **Adam, Badradeen**; Mohsin HA Hashim; Shooting Method in solving boundary value problem, *International Journal of Research and Reviews in Applied Sciences*, 1 (2014), 1- 8.
8. **Adam, Badradeen**; A comparative study of Adomain decomposition method and the new integral transform “Elzaki transform”, *International Journal of Applied Mathematical Research*, 1 (2014), 8-14.
9. **Adam, Badradeen**; Haiyan Gao; Shengmao Fu; Nonlinear Instability for a Volume-Filling Chemotaxis Model with Bistable Source Term, (Submitted to ZAMP).
10. **Adam, Badradeen**; Lin, Zhigui; A free boundary for mutualistic model with expanding front, prepare.

References

1. Prof. Dr. Zhigui Lin
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2. Prof. Dr. Shengmao Fu
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