

Dr. Mansoor Hassan Alshehri

Associate Professor of Mathematics, Mathematics Department, College of Science, King Saud University P.O.Box 2455, Riyadh 11451

E-Mail: mhalshehri@ksu.edu.sa

Tel: +966 11 4676507

Fax: +966 11 4676512

Education

- **University of Adelaide, Adelaide, Australia**

PhD in Applied Mathematics (Nanotechnology), with *Dean's Commendation for Doctoral Thesis Excellence for Outstanding Thesis* 2014

Thesis Title: Modelling interaction of DNA with carbon nanostructures

- **University of Wollongong, Wollongong, Australia**

Master in Mathematics 2010

- **Riyadh Teachers College, Riyadh, Saudi Arabia**

Bachelor of Mathematics with second class honors (GAP: 4.48 out of 5) 2006

Working Experience

- 2019-now Associate Professor of Mathematics, College of Sciences, King Saud University
- 2014- 2019: Assistant Professor of Mathematics, College of Sciences, King Saud University.
- 2007 – 2008: Assistant lecturer in College of Teachers, King Saud University.
- 2008- 2014: Scholarship for higher studies in Australia
- 2006 – 2007: Mathematics teacher in the middle school.

Skills

- Languages: Arabic and English (abilities in speaking, reading and writing).
- Programming languages: Maple .
- Word Processing: Latex, Word, Excel, PowerPoint.
- Operating Systems: Windows and Apple's Mac OS X.

Academic Awards

Dean's Commendation for Doctoral Thesis Excellence for Outstanding PhD Thesis 2014

Publications

- M. H. Alshehri Mathematical Modeling: Cisplatin Binding to Deoxyribonucleic Acid, *Mathematics* 2023, 11(1), 235; <https://doi.org/10.3390/math11010235>
- M. H. Alshehri Adsorption of Cisplatin Molecules in Nanoporous Inorganic Materials as Drug Delivery Vehicles. *Mathematics* 2022, 10, 1018. doi: [10.3390/math10071018](https://doi.org/10.3390/math10071018).
- M. H. Alshehri Computational study on encapsulation of 5-fluorouracil drug in nanotubes, *AIMS Mathematics* 2022, 7(9): 16975–16985.
- M. H. Alshehri An Analytical Model for Lithium Storage in Spherical Fullerenes. *Energies* 2022, 15, 7154. doi: [10.3390/en15197154](https://doi.org/10.3390/en15197154).
- M. H. Alshehri. Modeling Interactions of Iron Atoms Encapsulated in Nanotubes. *Crystals* 2021, 11, 845. doi: [10.3390/cryst11080845](https://doi.org/10.3390/cryst11080845).
- M. H. Alshehri. Investigation of Interaction of Noble Metals (Cu, Ag, Au, Pt and Ir) with Nanosheets. *Micromachines* 2021, 12, 906. doi: [10.3390/mi12080906](https://doi.org/10.3390/mi12080906).
- M. H. Alshehri Computational Study on the Interaction and Moving of ssDNA through Nanosheets. *Crystals* 2021, 11, 1019. doi: [10.3390/cryst11091019](https://doi.org/10.3390/cryst11091019).
- M. H. Alshehri Continuum Modelling for Encapsulation of Anticancer Drugs inside Nanotubes. *Mathematics* 2021, 9, 2469. doi: [10.3390/math9192469](https://doi.org/10.3390/math9192469).
- M. H. Alshehri Modeling interactions of dsDNA inside single-walled nanotubes, *AIP Advances* 11, 045102 (2021); <https://doi.org/10.1063/5.0047697>.
- M. H. Alshehri, F. Z. Duraihem, and M. A. Aba Oud, Instability and translocation through nanopores of DNA interacting with single-layer materials, *RSC Adv.*, 2020,10, 36962-36970
- M. H. Alshehri. Modelling of Nickel Atoms Interacting with Single-Walled Nanotubes. *Advances in Mathematical Physics*, 2019: 7pp, 2019.
- M. H. Alshehri. Continuous Approximation for Interaction Energy Transfer of DNA through Lipid Bilayers. *Discrete Dynamics in Nature and Society*, 2018: 7pp, 2018.
- M. H. Alshehri. Interactions of Boron Nitride Nanotubes with Lipid Bilayer Membranes, *Journal of Computational and Theoretical Nanoscience*, 15, 311–316, 2018.
- M. H. Alshehri and J. M. Hill. Suction Energy for Double-Stranded DNA Inside Single-Walled Carbon Nanotubes, *The Quarterly Journal of Mechanics and Applied Mathematics*, 70(4):387-400, 2017
- M. H. Alshehri, B. J. Cox, and J. M. Hill. Energy behaviour for DNA translocation through graphene nanopores, *Journal of Theoretical Biology*, 387, 68–75, 2015.
- M. H. Alshehri, B. J. Cox, and J. M. Hill. Interaction of double-stranded DNA inside single- walled carbon nanotubes. *Journal of Mathematical Chemistry*, 50:2512–2526, 2012.
- M. H. Alshehri, B. J. Cox, and J. M. Hill. DNA adsorption on graphene. *European Physical Journal D*, 67: 226 (9pp), 2013.
- M. H. Alshehri, B. J. Cox, and J. M. Hill. Offset configurations for single- and double- strand DNA inside single-walled carbon nanotubes. *European Biophysics Journal*, 43: 25–33, 2014.
- M. H. Alshehri, B. J. Cox, and J. M. Hill. Determination of the optimal nanotube radius for single-strand DNA encapsulation. *Micro and Nano Letters*, 9: 113–18, 2014.
- M. H. Alshehri, B. J. Cox, and J. M. Hill. C60 fullerene binding to DNA. *European Physical Journal B*, 87: 199, 2014.

Conferences

1. ANZIAM 2012, Australia and New Zealand Industrial Applied Mathematics, Warrnambool, Victoria, Australia.
2. ICONN 2012, International Conference on Nanoscience and Nanotechnology, Perth, Australia.