



Name: Dr. Abedalsalam Abumoise
Rank: Assistant Professor - Mathematics & Physics

Personal Information

Nationality: Canadian
AU Joining Date: August 24, 2025
E-Mail Address: a.abumoise@au.edu.kw

Professional Information

Education:	- PhD in Mathematics, Memorial University of Newfoundland and Labrador, NL, Canada, 2024 Thesis: Entropy and entanglement in a bipartite quasi-Hermitian system and its Hermitian counterparts -MSc in Mathematics, Memorial University of Newfoundland and Labrador, NL, Canada, 2019 Thesis: Reservoir dynamics induced by coupling to a quantum system -BSc in Mathematics and Statistics, Arab American University, Jenin, Palestine, 2014 Graduating project: The effect and role of the Palestinian woman in the community: A statistical case study in Jenin – Palestine - Training program on Communication Skills, PASSIA, Ramallah, Palestine, Jun 2015 -SPSS Training, Hassib Sabbagh IT Center of Excellence, Jenin, Palestine, May 2015
Specialization:	Mathematical Physics
Current Academic Position:	Assistant Professor – Mathematics and Physics

Current Professional Positions:	
Previous Administrative Position Held:	-Freelance contractor in AI training, Outlier AI, Sept 2024-Jan 2025
Previous Academic Positions Held:	-Per-Course Instructor, Memorial University of Newfoundland and Labrador, Canada, Jan 2020-Apr 2023 -Teaching Assistant, Mathematics Department, Memorial University of Newfoundland and Labrador, Canada, Sept 2017-Aug 2023 -Program teaching assistant for the Math Bridging Program, Memorial University of Newfoundland and Labrador, Canada, Jul-Aug 2023 -Mathematics Highschool Teacher, Dar Al Marefa Private school, Jerusalem, Palestine, Sept 2015-Aug 2016
Fellowships And Honors:	- AARMS Junior Researcher Travel Support Program, Canada - Memorial University of NL Scholarship for graduate studies (for both MSc and PhD), Canada
Teaching Experience:	Instructor/Teacher: - Per-Course Instructor: Calculus II, Memorial University of Newfoundland and Labrador, Canada, Jan-Apr 2023 - Per-Course Instructor: Real Analysis I Lab, Memorial University of Newfoundland and Labrador, Canada, Sept-Dec 2022 and 2021 - Per-Course Instructor: Real Analysis II Lab, Memorial University of Newfoundland and Labrador, Canada, Jan-Apr 2020 - Mathematics Highschool Teacher, Dar Al Marefa Private school, Jerusalem, Palestine, Sept 2015-Aug 2016 Teaching Assistant: - Teaching Assistant, Mathematics Department, Memorial University of Newfoundland and Labrador, Canada, Sept 2017-Aug 2023 - Program teaching assistant for the Math Bridging Program, Memorial University of Newfoundland and Labrador, Canada, Jul-Aug 2023
Industrial And Technical Experience:	

Research Interest:	- Mathematical Physics: Focus on PT-symmetric and quasi-Hermitian quantum systems, particularly the mathematical structures underlying non-Hermitian quantum mechanics. - Operator theory, spectral analysis, Dyson maps, and the study of entropy and entanglement in bipartite systems. - Special interest in open quantum systems. - Matrix Analysis and Operator Theory: Exploration of structured matrices such as Toeplitz and adjacency matrices, with connections to spectral properties.
Research Grants:	
Research and Publications including Journal and Books:	- Abedalsalam Abumoise, Marco Merkli, Graham Cox. "Entropy and entanglement in a bipartite quasi-Hermitian system and its Hermitian counterparts." <i>Physical Review A</i> (2023): 108, 012223 - Abedalsalam Abumoise, Marco Merkli, Graham Cox. "Diagonalizability of two-dimensional PT-symmetric Hamiltonian at the transition point." In preparation for submission - Abedalsalam Abumoise, Marco Merkli, Graham Cox. "Dyson map and PT-symmetric regimes." In preparation for submission
Paper Presentations at Professional Conferences:	- Mathematics and Statistics department seminar, Memorial University of NL, Feb 2024 - The 20th International Workshop on Pseudo-Hermitian Hamiltonians in Quantum Physics, Turkey, Aug 2023
College Service including committee Membership:	- Volunteer student assistant in the 25th Domain Decomposition Conference, Memorial University of Newfoundland and Labrador, Canada, Jul 2018 - Student data analysis volunteer, Arab American University, Jenin, Palestine, May 2014 - President of the Undergraduate Math Club, Arab American University, Jenin, Palestine, Nov 2012-Aug 2014
National Service:	
College Committees:	