



Abdo Abou Jaoudé, Ph.D.

Associate Professor

Department of Mathematics & Statistics

O: FNAS 0.12 (Main) & CA 114 B (Shouf Campus)

T: 09 218 950, Ext. 2545

E: aaboujaoude@ndu.edu.lb

Biography

Abdo Abou-Jaoudé has been teaching for many years and has a passion for educating and doing mathematics. It gives Abou-Jaoudé great pleasure to share his knowledge with others. He also believes that Mathematics is the gateway to knowledge and to the deepest mysteries. This is what most philosophers across the ages have taught. By following in the steps of the greatest mathematicians, he desires to be able to contribute throughout his career, even if modestly, to this illustrious field of knowledge. Abou-Jaoudé's research encompasses the field of Applied Mathematics, and he has also published numerous papers in the area of science. He is extremely interested in the area of diagnostic and prognostic applied to complex dynamic systems, which is the topic of his doctorate dissertation. Abou-Jaoudé is also developing a new branch in Mathematics, i.e. the Complex Probability Paradigm, which joins Probability Theory with Complex Variables and Analysis.

Peer-reviewed Journals

International

- Abou Jaoude, A. (2020) The Paradigm of Complex Probability and The Central Limit Theorem, London Journal of Research in Science: Natural and Formal (LJRS), London Journals Press, Vol. 20(5), pp: 1-57.
- Abou Jaoude, A. (2020) The Paradigm of Complex Probability and Prognostic Using FORM, London Journal of Research in Science: Natural and Formal (LJRS), London Journals Press, Vol. 20(4), pp: 1-65.
- Abou Jaoude, A. (2019) The Paradigm of Complex Probability and Monte Carlo Methods, Systems Science and Control Engineering (SSCE), Taylor and Francis Publishers, Vol. 7(1), pp: 407-451.
- Abou Jaoude, A. (2018) The Paradigm of Complex Probability and Ludwig Boltzmann's Entropy, Systems Science and Control Engineering, Taylor and Francis Publishers, Vol. 6(1), pp: 108-149.
- Abou Jaoude, A. (2017) The Paradigm of Complex Probability and Analytic Nonlinear Prognostic for Unburied Petrochemical Pipelines, Systems Science and Control Engineering, Taylor and Francis Publishers, Vol. 5(1), pp: 495-534.
- Abou Jaoude, A. (2017) The Paradigm of Complex Probability and Claude Shannon's Information Theory, Systems Science and Control Engineering, Taylor and Francis Publishers, Vol. 5(1), pp: 380-425.
- Abou Jaoude, A. (2017) The Paradigm of Complex Probability and Analytic Linear Prognostic for Unburied Petrochemical Pipelines, Systems Science and Control Engineering, Taylor and Francis Publishers, Vol. 5(1), pp: 178-214.
- Abou Jaoude, A. (2016) The Paradigm of Complex Probability and Analytic Nonlinear Prognostic for Vehicle Suspension Systems, Systems Science and Control Engineering, Taylor and Francis Publishers, Vol. 4(1), pp: 334-378.

- Abou Jaoude, A. (2016) The Paradigm of Complex Probability and Chebyshev's Inequality, *Systems Science and Control Engineering*, Taylor and Francis Publishers, Vol. 4(1), pp: 99-137.
- Abou Jaoude, A. (2015) The Paradigm of Complex Probability and the Brownian Motion, *Systems Science and Control Engineering*, Taylor and Francis publishers, Vol. 3(1), pp: 478-503.
- Abou Jaoude, A. (2015) The Complex Probability Paradigm and Analytic Linear Prognostic for Vehicle Suspension Systems, *American Journal of Engineering and Applied Sciences*, Science Publications, Vol. 8(1), pp: 147-175.
- Abou Jaoude, A. (2015) Analytic and Linear Prognostic Model for A Vehicle Suspension System Subject to Fatigue, *Systems Science and Control Engineering*, Taylor and Francis publishers, Vol. 3(1), pp: 81-98.
- Abou Jaoude, A. (2014) Complex Probability Theory and Prognostic, *Journal of Mathematics and Statistics*, Science Publications, Vol. 10(1), pp: 1-24.
- Abou Jaoude, A. (2013) The Theory of Complex Probability and The First Order Reliability Method, *Journal of Mathematics and Statistics*, Science Publications, Vol. 9(4), pp: 310-324.
- Abou Jaoude, A. (2013) The Complex Statistics Paradigm and The Law of Large Numbers, *Journal of Mathematics and Statistics*, Science Publications, Vol. 9(4), pp: 289-304.
- Abou Jaoude, A. (2013) The Theory of Metarelativity: Beyond Albert Einstein's Relativity, *Physics International*, Science Publications, Vol. 4(2), pp: 97-109.
- El-Tawil, K., Abou Jaoude, A. (2013) Stochastic and Nonlinear Based Prognostic Model, *Systems Science and Control Engineering*, Taylor and Francis publishers, Vol. 1(1), pp: 66-81.
- Abou Jaoude, A., El-Tawil, K. (2013) Stochastic Prognostic Paradigm for Petrochemical Pipelines Subject to Fatigue, *American Journal of Engineering and Applied Sciences*, Science Publications, Vol. 6(2), pp: 145-160.
- Abou Jaoude, A., El-Tawil, K. (2013) Analytic and Nonlinear Prognostic for Vehicle Suspension Systems, *American Journal of Engineering and Applied Sciences*, Science Publications, Vol. 6(1), pp: 42-56.
- Abou Jaoude, A., Kadry, S., El-Tawil, K., Noura, H., Ouladsine, M. (2011) Analytic Prognostic for Petrochemical Pipelines, *Journal of Mechanical Engineering Research*, Vol. 3(3), pp: 64-74.
- Abou Jaoude, A., El-Tawil, K., Kadry, S., Noura, H., Ouladsine, M. (2010) Analytic Prognostic Model for A Dynamic System, *International Review of Automatic Control*, Vol. 3(6), pp: 568-577.
- Kadry, S., Kassem, H., Smali, M., Abou Jaoude, A. (2010) Statistical Study of Complex Eigenvalues in Stochastic Systems, *Research Journal of Applied Sciences, Engineering, and Technology*, Vol. 2(3), pp: 233-238.
- Abou Jaoude, A., El-Tawil, K., Kadry, S. (2010) Prediction in Complex Dimension Using Kolmogorov's Set of Axioms, *Journal of Mathematics and Statistics*, Science Publications, Vol. 6(2), pp: 116-124.

Peer-reviewed Conference Proceedings

International

- Abou Jaoude, A., Noura, H., El-Tawil, K., Kadry, S., Ouladsine, M. (2012) Analytic Prognostic Model for Stochastic Fatigue of Petrochemical Pipelines, *Proceedings of the Australian Control Conference*, Sydney, Australia, pp: 233-240.
- Abou Jaoude, A., Noura, H., El-Tawil, K., Kadry, S., Ouladsine, M. (2012) Lifetime Analytic Prognostic for Petrochemical Pipes Subject to Fatigue, *Proceedings of the 8th IFAC Symposium on Fault Detection, Supervision, and Safety of Technical Processes (SafeProcess)*, Mexico City, Mexico, pp: 707-713.
- Abou Jaoude, A., El-Tawil, K., Kadry, S., Noura, H., Ouladsine, M. (2011) Prognostic Model for Buried Tubes, *Proceedings of the International Conference on Advanced Research and Applications in Mechanical Engineering*, Notre Dame University-Louaize, Lebanon, pp: 169-174.
- El-Tawil, K., Abou Jaoude, A., Kadry, S., Noura, H., Ouladsine, M. (2010) Prognostic Based on Analytic Laws Applied to Petrochemical Pipelines, *Proceedings of the International Conference on Computer-aided Manufacturing and Design*, China, pp: 105-110.
- El-Tawil, K., Kadry, S., Abou Jaoude, A. (2009) Life Time Estimation Under Probabilistic Fatigue of Cracked Plates for Multiple Limits States, *Proceedings of the Seventh International Conference of Numerical Analysis and Applied Mathematics*, Crete, Greece, Vol. 2, pp: 1510-1514.
- Abou Jaoude, A., Kadry, S., El-Tawil, K. (2009) A Novel SFEM Algorithm Using the Probabilistic Transformation Method, *Proceedings of the Seventh International Conference of Numerical Analysis and Applied Mathematics*, Crete, Greece, Vol. 2, pp: 1505-1509.

Chapters in Books

International

- Abou Jaoude, A. (2023) The Paradigm of Complex Probability and Numerical Integration Analysis: A Relation to Chaos Theory - The Simulations, Part of the book: Recent Advances in Monte Carlo Methods, IntechOpen, London, United Kingdom.
- Abou Jaoude, A. (2023) The Paradigm of Complex Probability and Numerical Integration Analysis: A Relation to Chaos Theory - The Model, Part of the book: Recent Advances in Monte Carlo Methods, IntechOpen, London, United Kingdom.
- Abou Jaoude, A. (2023) The Paradigm of Complex Probability and Quantum Mechanics: The Quantum Harmonic Oscillator with Gaussian Initial Condition – The Momentum Wavefunction and The Wavefunction Entropies, Part of the book: Simulation Modeling – Recent Advances, New Perspectives and Applications, IntechOpen, London, United Kingdom.
- Abou Jaoude, A. (2023) The Paradigm of Complex Probability and Quantum Mechanics: The Quantum Harmonic Oscillator with Gaussian Initial Condition – The Position Wavefunction, Part of the book: Simulation Modeling – Recent Advances, New Perspectives, and Applications, IntechOpen, London, United Kingdom.
- Abou Jaoude, A. (2023) The Paradigm of Complex Probability and the Theory of Metarelativity – The General Model and Some Consequences of MCPP, Part of the book: Operator Theory – Recent Advances, New Perspectives and Applications, IntechOpen, London, United Kingdom.
- Abou Jaoude, A. (2023) The Paradigm of Complex Probability and the Theory of Metarelativity – A Simplified Model of MCPP, Part of the book: Operator Theory – Recent Advances, New Perspectives and Applications, IntechOpen, London, United Kingdom.
- Abou Jaoude, A. (2022) The Paradigm of Complex Probability and Quantum Mechanics: The Infinite Potential Well Problem – The Momentum Wavefunction and The Wavefunction Entropies, Part of the book: Applied Probability Theory - New Perspectives, Recent Advances and Trends, IntechOpen, London, United Kingdom.
- Abou Jaoude, A. (2022) The Paradigm of Complex Probability and Quantum Mechanics: The Infinite Potential Well Problem – The Position Wavefunction, Part of the book: Applied Probability Theory - New Perspectives, Recent Advances and Trends, IntechOpen, London, United Kingdom.
- Abou Jaoude, A. (2021) The Paradigm of Complex Probability and Isaac Newton's Classical Mechanics: On the Foundation of Statistical Physics, Part of the book: The Monte Carlo Methods - Recent Advances, New Perspectives and Applications, IntechOpen, London, United Kingdom.
- Abou Jaoude, A. (2021) The Paradigm of Complex Probability and Thomas Bayes' Theorem, Part of the book: The Monte Carlo Methods - Recent Advances, New Perspectives and Applications, IntechOpen, London, United Kingdom.
- Abou Jaoude, A. (2020) The Monte Carlo Techniques and The Complex Probability Paradigm, Part of the book: Forecasting in Mathematics - Recent Advances, New Perspectives and Applications, IntechOpen, London, United Kingdom.
- Abou Jaoude, A. (2020) Analytic Prognostic in the Linear Damage Case Applied to Buried Petrochemical Pipelines and the Complex Probability Paradigm, Part of the book: Fault Detection, Diagnosis and Prognosis, IntechOpen, London, United Kingdom.

Books

International

- Abou Jaoude, A. (2023) Recent Advances in Monte Carlo Methods, In Press, IntechOpen, London, United Kingdom.
- Abou Jaoude, A. (2023) Simulation Modeling – Recent Advances, New Perspectives and Applications, In Press, IntechOpen, London, United Kingdom.
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- Abou Jaoude, A. (2022) The Monte Carlo Methods - Recent Advances, New Perspectives and Applications, IntechOpen, London, United Kingdom.
- Abou Jaoude, A. (2021) The Analysis of Selected Algorithms for the Statistical Paradigm, Volume 2, Generis Publishing, The Republic of Moldova.
- Abou Jaoude, A. (2021) The Analysis of Selected Algorithms for the Statistical Paradigm, Volume 1, Generis Publishing, The Republic of Moldova.
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- Abou Jaoude, A. (2019) The Computer Simulation of Monté Carlo Methods and Random Phenomena, Cambridge Scholars Publishing, London, United Kingdom.
- Abou Jaoude, A. (2013) Automatic Control and Prognostic: Advanced Analytical Model for the Prognostic of Industrial Systems Subject to Fatigue, Scholars' Press, Saarbrucken, Germany.

Esteemed Indicators

- Editorial Board Member of Modern Intelligent Times, Innovationforever.
- Interview with the platform Faculti, London, United Kingdom, held on January, 24, 2023.
- Bircham International University Professor.
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