

CURRICULUM VITAE

Michael Aristidou

Personal Data

Born: June 7, 1975 in Athens, Greece, Cyprus citizen.
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Education

1995–99 BS in Mathematics, Aristotle University of Thessaloniki, Greece.
(Advisor: Dr. M. Panteki).
1999–01 MS in Mathematics, Louisiana State University, USA.
2001–04 MA in Philosophy, Louisiana State University, USA.
(Advisor: Dr. J. Cogburn).
2001–05 Ph.D. in Mathematics, Louisiana State University, USA.
(Advisor: Dr. G. Ólafsson).

Professional Experience

1993–95 Reserve Sub-Lieutenant in the Cyprus Armed Forces.
1999–05 Teaching Assistant at Louisiana State University.
2003 (Summer) Worked on a MatLab Program for a gateway Wavelets course.
Math 2025, “Wavelets made easy”, Louisiana State University.
(Instructor: Prof. G. Ólafsson). Supported by NSF Grant DMS-0139783.
2004 (Summer) Worked on the Preparation of Class Notes for a gateway Wavelets course.
Math 2025, “Wavelets made easy”, Louisiana State University.
(Instructor: Prof. G. Ólafsson). Supported by NSF Grant DMS-0139783.
2005–2009 Assistant Professor at DigiPen Institute of Technology.
2009–2010 Assistant Professor at Barry University.
2010 (Spring) Adjunct Professor at Florida International University.
2011 (Spring) Adjunct Professor at Northwestern State University.
2011–present Assistant Professor at American University of Kuwait.

Honors and Grants

1994–95: Reserve Sub-Lieutenant, Cyprus Armed Forces.
1996–97: Scholarship, Aristotle University.
1997–98: Scholarship, Aristotle University.
2005 (Spring): Focused Research Award.
2009: State Teacher Quality Grant (Content Developer - grades 9-12). Supported by the Florida Dept. of Education.

Research Interest

- 1) Quaternion Algebra and Applications, Quaternion Rings over Finite Fields.
- 2) Linear Algebra and Discrete Mathematics, their connections and applications. Rook Polynomials.
- 3) Fuzzy Algebraic Structures, Fuzzy Sets and Logic and their applications to A.I.
- 4) Jordan Algebras, Representations of Lie Groups and Lie Algebras, in relation to Special Functions.
- 5) Philosophy (in general), Rationality and Human Reasoning, and Philosophy and History of Mathematics.
- 6) Philosophy of Education.
- 7) Undergraduate Research.

Publications

a: Published

- 1) Games in Fuzzy Environments (with S. Sarangi), *Southern Economic Journal*, 2006.
- 2) Differential Recursion Relations for Laguerre Functions on Symmetric Cones (with G. 'Olafsson and M. Davidson), *Bulletin des Sciences Mathematiques*, 2006.
- 3) Laguerre Functions Associated to Euclidean Jordan Algebras (Dissertation), *ProQuest/UMI*, 2006.
- 4) Laguerre Functions on Symmetric Cones and Recursion Relations in the Real Case (with G. 'Olafsson and M. Davidson), *Journal of Computational and Applied Mathematics*, 2007.
- 5) Logarithm of the Discrete Fourier Transform (with J. Hanson), *International Journal of Mathematics and Mathematical Sciences*, 2007.
- 6) Fuzzy Ordering of Fuzzy Numbers (with E. Osaben and A. Yopp), *Advances in Fuzzy Sets and Systems*, 2008.
- 7) The VQM-Group and its Applications (with Xin Li), *International Journal of Algebra*, 2008.
- 8) A Note on Quaternion Rings over \mathbb{Z}_p (with A. Demetre), *International Journal of Algebra*, 2009.
- 9) A Property of the Roots of r -D Rook Polynomials, *Ars Combinatoria*, 2010.
- 10) A Practical Method for Finding Fuzzy Subgroups of S_n (with G. Walters and A. Merrill), *Advances in Fuzzy Sets and Systems*, 2011.
- 11) Idempotent Elements in Quaternion Rings over \mathbb{Z}_p (with A. Demetre), *International Journal of Algebra*, 2012.
- 12) Do Linear Transformations Preserve Fuzzy Linear Independence? Some Examples, *International Mathematical Forum*, 2012.
- 13) A Note on Nilpotent Elements in Quaternion Rings over \mathbb{Z}_p (with A. Demetre), *International Journal of Algebra*, 2012.
- 14) Is Euclidean Geometry still Relevant? The Case of a Quaternionic Algorithm, *Issues on Education and Research*, 2013.
- 15) Irrationality Re-Examined: A Few Comments on the Conjunction Fallacy, *Open Journal of Philosophy*, 2013.
- 16) Philosophical Themes in *Mass Effect* (with B. Bassalo), *Open Journal of Philosophy*, 2014.
- 17) Courage: A Modern Look at an Ancient Virtue (with A. Zavalij), *Journal of Military Ethics*, 2014.
- 18) Invariant Means on σ -Dedekind complete totally ordered Riesz Spaces (with G. Chailos), *Theoretical Mathematics and Applications*, 2016.
- 19) Some Thoughts on the Epicurean Critique of Mathematics, *Journal of Humanistic Mathematics*, 2017.

b. Submitted

- 1) Project-Based Learning: Any Academic Benefits for the Teacher or Student?

c: In preparation

- 1) Is Mathematical Logic Really Necessary in Teaching Mathematical Proofs?
- 2) Some Differential Recursion Relations for Rook Polynomials.
- 3) Probability and Intelligent Design: Some remarks on an article by Glass.

d: Other (unpublished)

- 1) Symmetric Patterns Generated from the Finite Fields \mathbb{Z}_p (with T. Brossmann).
- 2) Some Results on $\mathbb{Z}_n[i, j, k]$ (with A. Demetre).
- 3) Multi-Objective Agents and Other Applications of Fuzzy Sets in Games (with J. Gault).
- 4) Personality Driven Agents Using Fuzzy Hedging Techniques (with D. Ventrees).
- 5) Properties of Fuzzy Addition with respect to Fuzzy Ordering (with E. Osaben and A. Yopp).

Presentations

- 1) June 1999: From the Equation Solvability Theory to the Group Theory of Galois (Special Topic/Thesis Defense, Aristotle University).
- 2) May 2000: Fibonacci Triangles (Communicating Mathematics Seminar, Louisiana State University).
- 3) May 2004: Irrationality and Human Reasoning (Thesis Defense, Louisiana State University).
- 4) October 2004: Are Humans So Irrational? (Philosophy Club, Louisiana State University).
- 5) November 2004: Laguerre Functions for the Cone of Positive Definite Real Matrices (Graduate Student Seminar,

- Louisiana State University).
- 6) February 2005: Consistency, Probability and Human Rationality (Math Club, Louisiana State University).
 - 7) July 2005: Laguerre Functions Associated to Euclidean Jordan Algebras (Dissertation Defense, Louisiana State University).
 - 8) March 2006: Ithaca beyond Odyssey (Seminar for the course “Mythology for Game Designers”, DigiPen Institute of Technology).
 - 9) March 2006: Fuzzy Sets and Groups (Math Colloquium, DigiPen Institute of Technology).
 - 10) June 2006: Lie Algebra Actions on Tube Domains and Laguerre Functions (MAA PNW Section Meeting, Southern Oregon University).
 - 11) June 2006: Fuzzy Numbers and Fuzzy Groups (MAA PNW Section Meeting, Southern Oregon University).
 - 12) April 2008: Quaternions: Their Interesting Algebra and Some Applications (Invited Talk, University of Puget Sound).
 - 13) April 2009: A Note on Quaternion Rings over Z_p (MAA PNW Section Meeting, Central Washington University).
 - 14) November 2009: “Optimus” Prime (Barry University Math Club).
 - 15) December 2009: Quaternions: Their Interesting Algebra and Some Applications (Frederick University, Cyprus)
 - 16) March 2010: Rook Polynomials and Some of their Properties (Barry University Math Club).
 - 17) April 2011: Beyond Ordinary Numbers: Quaternions and Applications (24th Annual Research Day at Northwestern State University)
 - 18) April 2011: Rooks in n-D Chessboards and Polynomials (24th Annual Research Day at Northwestern State University)
 - 19) June 2011: Philosophical Themes in *Mass Effect* (with B. Bassalo). [6th Annual International Conference in Philosophy, Athens Institute for Education and Research].
 - 20) June 2011: Is Euclidean Geometry still Relevant? The Case of a Quaternionic Algorithm. [5th Annual International Conference in Mathematics and Statistics, Athens Institute for Education and Research].
 - 21) February 2012: Rook Polynomials and Some of their Properties (Math Colloquium, American University of Kuwait).
 - 22) May 2012: Irrationality Re-Examined: A Few Comments on the Conjunction Fallacy. [7th Annual International Conference in Philosophy, May 2012, Athens Institute for Education and Research].
 - 23) October 2014: Some Thoughts on the Epicurean Critique of Mathematics. [“Friends of Epicurean Philosophy” Club, Athens].
 - 24) October 2014: Some Thoughts on the Epicurean Critique of Mathematics. [“Ideotopos” Journal for their Annual Series of Invited Speakers, Athens].
 - 25) Project-Based Learning: Any Academic Benefits for the Teacher or Student? [*Project-Based Learning Symposium*, Australian College of Kuwait, 2018].

Reviewing/ Conferences

- 1) Summer 2004: Participated in the “Workshop in Special Functions and Harmonic Analysis”, Irsee, Germany.
- 2) Spring 2005: Participated in the AMS/MAA Joint Meetings, Atlanta, USA.
- 3) Spring 2006: Participated in the Faculty Development Seminar “Conflict Resolution in the Classroom”, DigiPen Institute of Technology, Redmond, USA.
- 4) Spring 2006: Attended the National Teleconference “Cultivating Campus Cultures that Value Student Success”, DigiPen Institute of Technology, Redmond, USA.
- 5) Spring 2006: Attended “10th Annual PNW Number Theory Conference” DigiPen Institute of Technology, Redmond, USA.
- 6) Summer 2006: Attended the Instructor’s Workshop “Elements of Effective Teaching”, ITT Technical Institute, Seattle, USA.
- 7) Summer 2006: Participated in the “MAA PNW Section Meeting”, Southern Oregon University, Ashland, Oregon, USA.
- 8) Spring 2007: Reviewer for WSEAS (World Scientific and Engineering Academy and Society) [Reviewed 3 papers for conferences and publications].
- 9) Spring 2007: Organizer of two Sessions at the “MAA PNW Section Meeting”, Linfield College, McMinnville, Oregon, USA [(1) Student Papers and Undergraduate Research Projects, (2) Alternative Teaching Methods and Projects in Undergraduate Mathematics Courses].
- 10) Spring 2008: Reviewer of a chapter on Fuzzy Logic in “The Handbook of Technology Management” (John Wiley and Sons).

- 11) Spring 2009: Blurb on the book *Philosophy through Video Games*, by J. Cogburn and M. Silcox (Routledge).
- 12) Spring 2009: Organizer of two Sessions at the "MAA PNW Section Meeting", Central Washington University, Ellensburg, WA, USA [(1) Undergraduate Research Papers, (2) Student Poster Session].
- 13) Spring 2010: Judge at the STEM Symposium poster session (Barry University).
- 14) Fall/Spring 2010-11: Member of the Research Units (in Mathematics and in Philosophy) of ATINER (Athens Institute for Education and Research).
- 15) Fall 2011: Reviewer for ATINER (Athens Institute for Education and Research) [Reviewed 4 papers for the 5th Annual International Conference in Mathematics and Statistics].
- 16) Reviewer for the *Journal of Humanistic Mathematics*, 2017.
- 17) Reviewer for *Communications*, University of Ankara, Series: Mathematics and Statistics, 2017.

Student Research and Projects

- 1) Supervised R. Casey and M. Hensler on a paper entitled "Fuzzy Steering for Autonomous MCU-based Mobile Robotics", which was accepted to the "5th WSEAS International Conference on Computational Intelligence, Man-Machine Systems and Cybernetics" in Venice, Italy, 2006. The paper was also published in the *Transactions of Systems and Control* of the WSEAS.
- 2) Supervised M. Grigsby and R. Martija on a project entitled "Conjectures for Rook Polynomials in 3-D", which was presented at the "MAA PNW Section Meeting" in Oregon, USA, 2007.
- 3) Supervised M. Anderson and S. Niedzielski on a project entitled "A Method of Calculating Volume using IR-Sensors and Riemann Sums", which was presented at the "MAA PNW Section Meeting" in Oregon, USA, 2007.
- 4) Co-authored with E. Osaben and A. Yopp a paper entitled "Fuzzy Ordering of Fuzzy Numbers", published in the *Advances in Fuzzy Sets and Systems*, 2008.
- 5) Supervised E. Malko on a poster session ("Beyond Ordinary Numbers: Quaternions, Octonions, and Sedenions") at the STEM Symposium organized by Barry University, 2010.
- 6) Supervised Amro Gazlan (The British School of Kuwait, 13th grade) on a project entitled "A Method Finding the Tangent to a Curve using Perpendicular Bisectors", 2013.
- 7) Supervised K. Hailemariam on a paper entitled "Tridempotent Elements in Quaternion Rings over Z_p " (presented at the AUK Academic Showcase, 2013).

University Service

- 1) 2000: Grader in the annual Louisiana Math Rally.
- 2) 2001-04: Proctor in the annual Louisiana Math Rally.
- 3) 2006-08: Chair of the Math Colloquium Committee at DigiPen Institute of Technology.
- 4) 2006: Designed the course "Fuzzy Sets and Logic" at DigiPen Institute of Technology.
- 5) 2006: Organizer, and Chair, of the Undergraduate Research Group at DigiPen Institute of Technology.
- 6) 2006-08: Member of the Graduate Studies Committee at DigiPen Institute of Technology.
- 7) 2007: Designed the course "Introduction to Philosophy" at DigiPen Institute of Technology.
- 8) 2007: Committee Chair for the Master's Thesis defense of P. Moghames entitled "Deconstructing a Neural Network" at DigiPen Institute of Technology.
- 9) 2008: Committee Member for the Master's Thesis defense of C. Deeb entitled "CIG-C: A hierarchical Approach to Continuum Crowds" at DigiPen Institute of Technology.
- 10) 2009: Designed the course "Introduction to Topology" at DigiPen Institute of Technology.
- 11) 2010: Helped to organize the Barry University Math Club.
- 12) 2011: Judge at the 2011 Demon Math Classic competition of Northwestern State University.
- 13) 2012-14: Library Committee, Chair the Colloquium Committee in the Division of Science, College Curriculum Committee for the Arts and Science, Electrical and Computer Engineering Seminar Series (ECESS) Committee, Academic Policy Committee, at the American University of Kuwait.
- 14) 2013-2017: Faculty supervisor/instructor of the AUK Brazilian Jiu Jitsu Club.
- 15) Fall 2014: Design the course "Engineering Mathematics" at the American University of Kuwait.
- 16) Spring 2018: Design the course "Nature of Mathematics" at the American University of Kuwait.

Miscellaneous

- 1) Published articles in *Reveille* (LSU), *Davlos* (2006), *Free Inquiry* (Gr) (2009, 2010, 2011), *Mentor* (2009), and

- Ideotopos* (2012).
- 2) Published poetry in *Reflections: A Journal of Poetry and Arts* (2002) and *AUK Review* (2012).
 - 3) Founder and President of the *Hellenic Student Association* (2003).
 - 4) Represented Greece at the *Multicultural Fair at Buchanan Elementary*, for the promotion of Greek History and Culture (2003).
 - 5) Represented Greece at the annual *Louisiana State International Expo*, for the promotion of Greek Culture (2002, 2003, 2004).
 - 6) Organizer of the *1st Speed-Chess Tournament* at Louisiana State University (2005).
 - 7) Represented Greece and Cyprus for the *Multicultural Day at Park Ridge Elementary*, giving small seminars on Greek History and Culture (2005).
 - 8) Served as a judge for *Redmond's High Culminating Projects* (2006).
 - 9) Taught 1st-grade Greek language at St. Demetrius Elementary Greek School in Seattle (2006).
 - 10) Gave a talk entitled "Some of the Arguments For and Against the Existence of God: Analysis and Discussion" at Capitol Hill Library, Seattle, WA (2008).
 - 11) Gave a talk entitled "Regarding the Existence of God" (in Greek), Atheist Union of Greece, Athens (2011).
 - 12) Brazilian Jiu Jitsu practitioner, 2013-present.

Teaching Experience

LSU

Fall 1999:	Math 1021, 1022, 1550	College Algebra, Trigonometry, Calculus
Spring 2000:	Math 1021, 1022, 1550	College Algebra, Trigonometry, Calculus
Fall 2000:	Math 1021	College Algebra
Spring 2001:	Math 1021	College Algebra
Fall 2001:	Math 1021	College Algebra
Spring 2002:	Math 1022	Trigonometry
Fall 2002:	Math 1021	College Algebra
Spring 2003:	Math 1021	College Algebra
Fall 2003:	Math 1021	College Algebra
Spring 2004:	Math 2020	Discrete Problem Solving
Fall 2004:	Math 1023	College Algebra and Trigonometry (Pre-Calculus)

DIT

Fall 2005:	Math 200, Math 258	Multivariable Calculus, Discrete Mathematics
Spring 2006:	Math 258, Math 140	Discrete Mathematics, Linear Algebra
Summer 2006:	Math 362	Fuzzy Sets and Logic
Fall 2006:	Math 200, Math 258	Calculus, Discrete Mathematics
Spring 2007:	Math 140, Math 250	Linear Algebra, Advanced Linear Algebra
Summer 2007:	Math 362	Fuzzy Sets and Logic
Fall 2007:	Math 140, Math 250	Linear Algebra, Advanced Linear Algebra
Spring 2008:	Math 258, Math 351	Discrete Mathematics, Quaternions Interpolation and Animation
Summer 2008:	Phil 150	Introduction to Philosophy
Fall 2008:	Math 250, Math 258	Advanced Linear Algebra, Discrete Mathematics
Spring 2009:	Math 140, Math 351, Phil 150	Linear Algebra, Quaternions Interpolation and Animation, Introduction to Philosophy
Summer 2009:	Math 362/562	Fuzzy Sets and Logic

BU

Fall 2009:	Math 095, Math 110, Math 332	Preparatory Math III [College Algebra], Pre-Calculus Math II [Trigonometry], Linear Algebra
Spring 2010:	Math 109, Math 110, Math 487	Pre-Calculus Math I, Pre-Calculus Math II [Trigonometry], Advanced Math Seminars [Quaternion Algebra]

FIU

Spring 2010:	Math 1114, Math 1015	Preparatory Math III [Trigonometry], Pre-Calculus Math II [College Algebra]
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NSU

Spring 2011: Math 1090 Trigonometry [Video Compressed Class]

AUK

Fall 2011: Math 095, Math 100 Preparatory Math, College Algebra
 Spring 2012: Math 100, Math 103, Math 206, Math 388 College Algebra, Mathematics for Business, Calculus III (Multivariable Calculus) Independent Study
 Summer 2012: Math 201 Calculus I
 Fall 2012: Math 110, Math 213 Pre-Calculus, Discrete Mathematics
 Spring 2013: Math 101, Math100, Math 388 Finite Mathematics, College Algebra, Independent Study
 Summer 2013: Math 201, Math 388 Calculus I, Independent Study
 Fall 2013: Math 213, Math 203, Math 095, Math100 Discrete Mathematics, Calculus II, Preparatory Math, College Algebra
 Spring 2014: Math 101, Math100, Math 110, Math 206 Finite Mathematics, College Algebra, Pre-Calculus, Calculus III (Multivariable Calculus)
 Summer 2013: Math 201, Math 388 Calculus I, Independent Study
 Fall 2014: Math 213, Math 203, Math 095, Math 388, Math100 Discrete Mathematics, Calculus II, Preparatory Math, Independent Study, College Algebra
 Spring 2015: Math 110, Math 213, Math 207, Math 095, Math 388, Math100 Pre-Calculus, Discrete Mathematics, Engineering Mathematics, Preparatory Mathematics, Independent Study, College Algebra.
 Summer 2015: Math 201 Calculus I.
 Fall 2015: Math 213, Math 210, Math100 Discrete Mathematics, Differential Equations, College Algebra
 Spring 2016: Math 213, Math 207, Math 388, Math100, Discrete Mathematics, Engineering Mathematics Independent Study, College Algebra.
 Summer 2016: Math 201, Math 213 Calculus I, Discrete Mathematics.
 Fall 2016: Math 213, Math 203, Math100 Discrete Mathematics, Calculus II, College Algebra.
 Spring 2017: Math 213, Math 207, Math 388, Math 203, Math 206 Discrete Mathematics, Engineering Mathematics Independent Study, Calculus II, Calculus III (Multivariable Calculus).
 Summer 2017: Math 213, Math 388 Discrete Mathematics, Independent Study.
 Fall 2017: Math100, Math 203, Math 095, Math 110 College Algebra, Calculus II, Preparatory Math, Pre-Calculus.
 Spring 2018: Math 213, Math 206, Math 095, Math 110 Discrete Mathematics, Calculus III (Multivariable Calculus) Preparatory Math, Pre-Calculus.

Notes

1. For Fall 1999 and Spring 2000, I was a tutor for the corresponding classes. From Fall 2000 to Fall 2004, I was the instructor /TA (Teaching Assistant) for the corresponding classes [except Spring 2004, which I was the TA for Math 2020]. From Fall 2005 to present, I was the professor for the corresponding classes.
2. For Spring 2005 I was assigned to teach Calculus 1550, but I got relieved of my teaching duties due to the Focused Research Award.
3. For Summer 2018 Math 213 (Discrete Mathematics), Math 095 (Preparatory Mathematics), Math 388 (Independent Study). For Fall 2018 Math 095 (Preparatory Mathematics), Math 110 (Pre-Calculus), Math 203 (Calculus).