

CURRICULUM VITÆ

<i>Name</i>	Frédéric (Fred) Mynard, Ph.D.
<i>Languages</i>	French (native), English (fluent), Spanish (fluent)
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<i>e-mail</i>	fmynard@njcu.edu
<i>area of expertise</i>	Mathematics (General Topology, Categorical Topology)
<i>web pages</i>	https://sites.google.com/site/fredmynardswebpage/

EDUCATION

1996-1999	Ph. D. (Mathematics) <i>Coreflectively modified continuous duality as a method of characterization of topological properties of product spaces</i> , (supervisor Professor S. Dolecki, Burgundy University, France) obtained with the felicitations of the jury, June 1999.
1998	CAPES of mathematics. (French competitive certification examination for high school teachers)
1993-1996	Bachelor and Masters of pure mathematics, Burgundy University (Dijon, France).
1991-1993	Mathématiques Supérieures and Mathématiques Spéciales at Carnot Lycée, Dijon, France.

TEACHING POSITIONS

2020-present	Tenured Full Professor, New Jersey City University (NJCU)
2017-2020	Full Professor (tenure-track), NJCU
2014-2017	Associate Professor (tenure-track), NJCU
2014	Promoted to Full Professor (tenured), Georgia Southern University (GSU)
2009-2014	Associate Professor (tenured), GSU
2004-2009	Assistant Professor (tenure-track), GSU
2001-2004	Visiting Assistant Professor at the University of Mississippi
2001	Lecturer at the University of Auckland, New Zealand
1999-2000	Teacher of mathematics and physics for candidates for the promotion to the grade of officer during a one-year compulsory military service as a scientific fellow (assimilated to the officer corps).
1998-1999	Teacher of mathematics in Ronsard College (intermediate high school)

ADMINISTRATIVE POSITIONS

July 24-present	<p>Associate Dean (Interim) for STEM and Psychology, College of Arts and Sciences, NJCU</p> <ul style="list-style-type: none">• responsibility for the coordination and supervision of all STEM programs and the Psychology program, including but not limited to, assisting Chairs whenever needed, coordination of program assessment, review of schedules, review of budget requests, review of reappointment and promotion applications, review of sabbatical applications• produced a new Chairs Handbook for the college• produced a document on improving various university processes• contributed to a space utilization survey• oversaw and assisted the move of the psychology department between buildings• participated in the evaluation of new faculty line requests and in the production of the paperwork for approved lines• comprehensive review of the Spring 25 and AY 25-26 schedules for needs across patterns and modalities• comprehensive review of budgets across the college• represented the college at STEM events• filled in for the Dean of the college in meetings as needed• supervision of the college's office secretarial staff
Spring 24	<p>CAS STEM coordinator (acting as Associate Dean for STEM concurrently with Math Chair duties), NJCU</p> <ul style="list-style-type: none">• comprehensive review of budget requests for AY 24-25• met with all STEM and Psychology department chairs individually and inventoried needs and challenges systematically
Summer 21-Spring 24	<p>Math Department Chair, NJCU</p> <ul style="list-style-type: none">• responsibility for scheduling, advisement of all majors and minors, conflict management and resolution, planning, representation, reporting, and advocacy for the department• facilitated new dual enrollment programs with local high schools (North Bergen HS, Union City HS, Union Catholic HS)• put in place a system of course coordinators and common exams for all multi-section courses• expansion of the emporium (winter and summer) bridge programs• advocated for and obtained a faculty lecturer line to support the bridge programs• advocated for and obtained a faculty lecturer line, as a dual-appointment with College of Education to supervise student teachers• oversaw the final steps in the elimination of remedial courses• reviewed transfer maps for new agreements with local community colleges (Hudson, Essex)• oversaw successful teach outs for the sunset mathematics master program when NJCU eliminated 48 undergraduate and 28 graduate programs• led the department program review Fall 21-Spring 22
Fall 20-Summer 21	<p>Math Department co-Chair, NJCU</p>

PUBLICATIONS

Published or accepted for publication in international peer-reviewed journals

1. E. Angulo-Perkins and F. Mynard, *Subobjects and compactness in pointfree convergence*, Journal of Mathematics, <https://doi.org/10.1155/2023/7510966>, 2023
2. F. Mynard, *Concrete functors that respect initiality and finality*, Applied General Topology, vol 24(1), pp.187-203, 2023
3. F. Mynard, *Approach Theory and pointfree convergence*, Topology Proceedings 61, pp. 31-47, 2023
4. F. Mynard and J. Wojciechowski, *When is a category of adherence-determined convergences simple?* Topology and its Applications vol 322, 2022
5. F. Mynard, *On points of convergence lattices and sobriety for convergence spaces*, Topology and its Applications, vol 319, 21 pages, 2022
6. F. Mynard, *Order convergence and convergence in the interval topology in the presence of compactoidness*, Cahiers de Topologie et Géométrie Différentielle Catégoriques, vol. LXII (4), 491-496, 2021
7. F. Mynard, *Comparison of countability conditions within three fundamental classifications of convergences*, Topology and its Applications, vol. 278, 38 pages, 2020
8. J. Goubault-Larrecq and F. Mynard, *Convergence without points*, Houston Journal of Mathematics, 46(1):227-282, 2020
9. F. Mynard, *(Ultra-) Completeness numbers and (pseudo-) paving numbers*, Topology and its applications 256: 86-103, 2019.
10. F. Chigr and F. Mynard, *The convergence-theoretic approach to weakly first countable spaces and symmetrizable spaces*, Mathematica Slovaca 69 (1):185-198, 2019.
11. F. Mynard, *Distinguishing the plane from the punctured plane without homotopy*, Mathematics Magazine 91(1): 16-19, 2018.
12. S. Dolecki and F. Mynard, *Productively sequential spaces*, Mathematica Slovaca, 68(3):667-676, 2018.
13. F. Mynard and M. Tkachenko, *Remarks on metrizability of dual groups*, Topology Proceedings, 47: 273-278, 2016.
14. F. Mynard and W. Trott, *Measure of compactness for filters in product spaces: Kuratowski-Mrowka in CAP revisited*, Topology and its Applications, 200: 251-267, 2016.
15. D. Hofmann, F. Mynard and G. Seal, *Exponential Kleisli monoids as Eilenberg-Moore algebras*, Applied Categorical Structures, 23(2):137-157, 2015
16. S. Dolecki and F. Mynard, *A unified theory of function spaces and hyperspaces: local properties*, Houston Journal of Math. 40(1), 285-318, 2014.
17. E. Colebunders, F. Mynard, and W. Trott (Master Student), *Function spaces and contractive extensions in Approach Theory: The role of regularity*, Applied Categorical Structures, 22(3): 551-563, 2014
18. F. Mynard, *A convergence-theoretic viewpoint on the Arzelà-Ascoli Theorem*, Real Analysis Exchange, 38(2): 431-444, 2013
19. F. Jordan and F. Mynard, *Core compactness and diagonality in spaces of open sets*, Applied General Topology, 12(2): 143-162, 2011
20. S. Dolecki, F. Jordan and F. Mynard, *Group topologies coarser than the Isbell topology*, Topology and its Applications 158(15): 1962-1968, 2011
21. R. Kopperman, F. Mynard and P. Ruse, *quasi-metric representations of various categories of closure spaces*, Topology Proceedings, 37: 331-347, 2011
22. S. Dolecki and F. Mynard, *When is the Isbell topology a group topology?* Topology and its Applications 157(8):1370-1378, 2010.

23. F. Mynard and G. Seal, *Phenotype Spaces*, Journal of Mathematical Biology, Vol. 60 No 2: 247-266, 2010
24. F. Mynard, *Measure of compactness for filters in the approach setting*, Quaestiones Mathematicae 31, 189–201, 2008
25. S. Dolecki, F. Jordan and F. Mynard, *Reflective classes of sequentially based convergences, sequential continuity and sequence-rich filters*. Topology Proceedings 31 No. 2, pp. 457-479, 2007
26. F. Mynard, *Products of compact filters and applications to classical product theorems*, Topology and its Applications, 154(4): p. 953-968, 2007
27. F. Mynard, *Unified characterization of exponential objects in TOP, PRTOP and PARATOP*, Cahiers de Topologie et Géométrie Différentielle Catégoriques, Volume 48, No. 1, pp. 70-80, 2007
28. A. Tran Mynard and F. Mynard, *Closure spaces and characterization of filters in terms of their Stone images*, Czechoslovak Mathematical Journal, Vol. 57, No. 3, pp. 1025-1034, 2007
29. F. Jordan, I. Labuda and F. Mynard, *Finite products of filters that are compact relative to a class of filters*, Applied General Topology, 8(2):161-170, 2007
30. F. Mynard, *Relations that preserve compact filters*, Applied General Topology, 8(2):171-185, 2007
31. F. Jordan and F. Mynard, *Compatible relations on filters and stability of local topological properties under supremum and product*, Topology and its Applications 153: 2386-2412, 2006
32. D. Gauld and F. Mynard, *Differentiability as continuity*, Real Analysis Exchange 31(2):425-430, 2005/2006
33. D. Gauld and F. Mynard, *Metrisability of manifolds in terms of function spaces*, Houston Journal of Mathematics, Volume 31, No. 1, pp. 199-214, 2005
34. F. Jordan and F. Mynard, *Productively Fréchet spaces*, Czechoslovak Mathematical Journal, Vol. 54, No. 4, pp. 981-990, 2004
35. S. Dolecki and F. Mynard, *Hyperconvergences*, Applied General Topology, Volume 4 No. 2: 391-419, 2003
36. F. Jordan and F. Mynard, *Espaces productivement de Fréchet*, Comptes Rendus de l'Académie des Sciences Paris, Ser I 335, 259-262, 2002
37. F. Mynard, *Coreflectively modified duality*, Rocky Mountain Mathematical Journal, Volume 34 No. 2 (Summer): 733-758, 2004
38. F. Mynard, *First-countability, sequentiality and tightness of the upper Kuratowski convergence*, Rocky Mountain Mathematical Journal, Volume 33 No. 3 (Fall): 1011-1038, 2003
39. F. Mynard, *When are compact, countably compact and Lindelöf convergences topological ?* Topology Proceedings, 26 No. 1, pp. 283-296, 2002
40. F. Mynard, *More on strongly sequential spaces*, Commentationes Mathematicae Universitatis Carolinae 43,3: 525-530, 2002
41. F. Mynard, *Coreflectively modified continuous duality applied to classical product theorems*, Applied General Topology, Volume 2, No. 2, pp. 119-154, 2001
42. S. Dolecki and F. Mynard, *Convergence-theoretic mechanisms behind product theorems*, Topology and its Applications, 104: 67-99, 2000
43. S. Dolecki and F. Mynard, *Cascades and multifilters*, Topology and its Applications, 104: 53-65, 2000
44. F. Mynard, *Strongly sequential spaces*, Commentationes Mathematicae Universitatis Carolinae, 41, 1: 143-153, 2000

Invited book chapter

45. D. Georgiou, S. Iliadis and F. Mynard, *Function space topologies*, [Open Problems in Topology II](#), Elliot Pearl (editor), Elsevier 2007
46. F. Mynard, *Espacios de convergencia. Parte I: ¿Por qué?*, [Topología y sus Aplicaciones \(8\)](#), Juan Angoa (editor), Benemérita Universidad Autónoma de Puebla, México, 2021

Under consideration for publication

- F. Mynard, *On (pre-) approach spaces within convergence approach spaces* (21 pages)
- F. Mynard and B. Castro Herrejón, *On connected subsets of a convergence space* (13 pages)

Books (editor)

- F. Mynard and E. Pearl, [*Beyond Topology*](#), Contemporary Mathematics #486, AMS, 2009.

Books (author)

- F. Mynard, [*Introduction to the language of mathematics*](#) (textbook), p. 185, 1st edition, Springer, November 2018
- S. Dolecki and F. Mynard, [*Convergence Foundations of Topology*](#), p. 568, 1st edition, World Scientific Publishers, 2016.
- F. Mynard, [*A youtube Calculus Workbook \(part I\)*](#), p. 299, 1st edition, Bookboon.com, 2013.
- F. Mynard, [*A youtube Calculus Workbook \(part II\)*](#), p.268, 1st edition, Bookboon.com, 2014.
- F. Mynard, [*Exercises for A youtube Calculus Workbook \(part II\): a flipped classroom model*](#), p.238, 1st edition, Bookboon.com, 2014.

FUNDED GRANTS

Period	Funding agency	role	title	amount
Fall 2019	NJCU-SBR release time	PI	<i>On generalizations of pretopologies involving countability conditions</i>	3 credits
Fall 2018	NJCU-SBR release time	PI	<i>Completeness numbers and paving numbers of the dual</i>	3 credits
Fall 2017	NJCU-SBR release time	PI	<i>Convergence theoretic approach to generalized metrizability</i>	3 credits
Fall 2016	NJCU-SBR release time	PI	<i>Elements of pointfree convergence</i>	3 credits
Fall 2015	NJCU-SBR release time	PI	<i>Measure of compactness, Ascoli-type theorems, and exponential objects in CAP</i>	3 credits
Fall 2015	NJCU-mini grant	PI		\$535
2017-2018	NSF (DMS-1724830)	PI	<i>51st Spring Topology and Dynamical Systems Conference</i>	\$40,350
2016-2022	NSF (1557358)	co-PI	<i>Noyce Scholarship Project (Track I, Phase I)</i>	\$1,449,485
Summer 2014	GSU Faculty Development Grant	PI	<i>Summer Conference on Topology and its Applications 2014</i>	\$1,122
Spring 2014	GSU Service Grant	PI	<i>AMS-MAA Joint Meeting, Baltimore, MD, Categorical Topology Special Session</i>	\$1,811
2011-2013	NSF (DMS-1132350)	co-PI	<i>31st Southeastern Atlantic Regional Conference on Differential Equations</i>	\$19,600
Spring 2010	GSU Faculty Development Grant	PI	<i>11th Topological Symposium, Prague</i>	\$1,536
2010	NSF (DMS-0948727)	co-PI	<i>Spring Topology and Dynamical Systems Conference 2010</i>	\$49,453
Fall 2009	GSU Service Grant	PI	<i>2010 Spring Conference on Topology and Dynamics</i>	\$992
Spring 2009	GSU Foundation grant	PI		\$420
Fall 2006	GSU Service Grant	PI	<i>22nd Summer Conference on Topology and its Applications</i>	\$1,000
2006-2007	NSF (DMS- 0603294)	PI	<i>21st Summer Conference on Topology and its Applications</i>	\$25,000
2006	GU Faculty Research grant	PI	<i>Applications of generalized topology</i>	\$10,000
Fall 2008	GSU CLEC Lecture support	PI	<i>funding for external speaker for a public lecture series in mathematics</i>	\$942
Spring 2007	GSU CLEC Lecture support	PI	<i>funding for external speaker for a public lecture series in mathematics</i>	\$1,180
Fall 2006	GSU CLEC Lecture support	PI	<i>funding for external speaker for a public lecture series in mathematics</i>	\$980
Spring 2006	GSU CLEC Lecture support	PI	<i>funding for external speaker for a public lecture series in mathematics</i>	\$980
Spring 2005	GSU CLEC Lecture support	PI	<i>funding for external speaker for a public lecture series in mathematics</i>	\$980

OTHER ACTIVITIES

Reviewer work	<p>Journals: Topology and its Applications, Topology Proceedings, Quaestiones Mathematicae, Houston Journal of Mathematics, Proceedings A.M.S., International Journal of Mathematics and Mathematical Sciences, Commentationes Mathematicae Universitatis Carolinae, Sochoow Mathematical Journal, Rendiconti Circ. Palermo, Mathematica Bohemica, Colloquium Mathematicum, Mathematics Magazine (MAA), Theory and Applications of Categories, Mediterranean Journal of Mathematics, Acta Mathematica Hungarica, Questions and Answers in Topology, Filomat, Hacettepe Journal of Mathematics and Statistics, Theory in BioSciences, Scientific Reports</p>
Editorial work	<ul style="list-style-type: none"> • Editorial Board member of <i>International Journal of Topology</i> (MDPI) (March 25-) • Editorial Board member of the <i>Electronic Journal of Mathematics</i> (since 2024) • Editorial Board member for <i>Open Journal of Mathematical Sciences</i> since Spring 21 • Topics Editor for <i>Mathematics</i> (MDPI) since Fall 20 • Editorial Board member for <i>Applied General Topology</i> (Since Summer 19) • Editorial Board member for the <i>International Journal of Mathematics and Mathematical Sciences</i> (May 2014-December 2023) • Editorial Board member for the Geometry section of <i>The Scientific World Journal</i> (until 08/16 when the Geometry section was discontinued) • Editorial Board member for the Geometry section of <i>International Scholarly Research Notices</i> (till the journal was discontinued 12/17) • Editorial Board member for the Geometry section of <i>Journal of Mathematics</i> (May 2014-December 2023) • Editor for the <i>General Topology</i> section of the book <i>Open Problems in Topology II</i>, Elliot Pearl (editor), Elsevier 2007. • Guest editor for <i>Topology Proceedings</i> 31 No 2 (2007) (proceedings of the 21st Summer Conference on Topology and its Applications, Georgia Southern University, July 6-9, 2006) • Main editor (with E. Pearl) of the collective volume <i>Beyond Topology</i>, Contemporary Mathematics #486, A.M.S. 2009.

Conference organization	<ul style="list-style-type: none"> • Member (2005-present) and former Chair (elected to 3 years term 2014-2017) of the Advisory Board to Summer Conferences on Topology and its Applications • Member of the Advisory Board to Spring Topology and Dynamics Conferences (2007-2019) • Member of the Scientific Committee and session organizer: <i>37th Summer Conference on Topology and its Applications</i>, Youngstown State University, Youngstown, OH, July 2023 • Main organizer: 51st Spring Topology and Dynamics Conference, NJCU, March 2017 • Organizer (with S. Hernandez and G. Luckacs) of the special session on <i>Topology+Algebra and Analysis</i> at the 32nd Summer Conference on Topology and its Applications, Dayton University, OH, June 2017 • Organizer (with S. Hernandez and G. Luckacs) of the special session on <i>Topological Methods in Algebra and Analysis</i> at the 31st Summer Conference on Topology and its Applications, Leicester University, UK, August 2-5, 2016 • Organizer (with G. Seal) of the special session <i>Categorical Topology</i>, Joint Mathematics Meeting (AMS-MAA), Baltimore, MD, January 15-18, 2014 • 31st Southeastern Atlantic Regional Conference on Differential Equations, September 30th-October 1st, 2011, Georgia Southern University. • AMS Southeastern sectional meeting, Statesboro, GA, March 12-13, 2011. Main organizing committee, organizer of the special session on <i>Categorical Topology</i> (with G. Seal), and of the special session on <i>Set-theoretic topology</i> (with P. Nyikos) • 44th Spring Conference on Topology and Dynamics, Mississippi State University, March 18-20th, 2010. • Main organizer: 21st Summer Conference on Topology and its Applications, Georgia Southern University, July 6-9, 2006. • Participation in the organization of the French-Japanese conference on Hyperspace topologies, La Bussière, France, October 1997
Short term visiting positions	<ul style="list-style-type: none"> • One-month research stay at the Mathematical Institute of Burgundy, Dijon, France (funded by Mathematical Institute of Burgundy), December 2005-January 2006. • One-month research stay at the University of Auckland, New Zealand (funded by the French Ministry of Foreign Affairs and the University of Auckland), December 2003-January 2004. • 3 months research position at RUCA University of Antwerp, Belgium, November 2000-February 2001 (funded by prof. Robert Lowen's research grants).
<i>Fall 2001-Fall 2002</i>	Creation and Organization of the Graduate Seminar of the Math Department, University of Mississippi.

TALKS AT CONFERENCES

- July 2023* *On pointfree approach theory*, 37th Summer Conference on Topology and its Applications, Youngstown State University, Youngstown OH, July 17-21, 2023
- May 2023* (invited) *Introducción a Teoría de Convergencia*, three parts workshop, Tercer Taller Estudiantil de Topología Categórica, Benemérita Universidad Autónoma de Puebla, Mexico
- March 2022* (invited) *Espacios de convergencia: ¿por qué?* Segundo Taller Estudiantil de Topología Categórica, Benemérita Universidad Autónoma de Puebla, Mexico
- May 2021* *Special subsets of βX and non-topological convergence properties characterized topologically*, 54th Spring Topology and Dynamics Conference, Murray State University, May 12-15, 2021
- July 2018* *Completeness number vs paving number of the upper Kuratowski convergence*, 33rd Summer Conference on Topology and its Applications, Western Kentucky University, Bowling Green KY, July 17-20, 2018
- March 2017* *Pointfree convergence: convergence frames*, 51st Spring Topology and Dynamical Systems Conference, NJCU, Jersey City, NJ, March 8-11, 2017.
- August 2016* *Convergence frames*, 31st Summer Conference on Topology and its Applications, Leicester University, UK, August 2-5, 2016
- March 2016* *On metrizability of dual groups*, 50th Spring Topology and Dynamical Systems Conference, Baylor University, Waco, TX, March 10-13, 2016.
- November 2015* *A flipped classroom model and self-graded homework*, New Jersey Sectional MAA meeting, Kean University, November 14, 2015
- June 2015* *Remarks on metrizability of dual groups*, 30th Summer Conference on Topology and its Applications, NUI Galway, Ireland, June 23-26, 2015
- July 2014* *Pointfree convergence*, 29th Summer Conference on Topology and its Applications, College of Staten Island, Staten Island, NY, July 23-26, 2014
- March 14* *A discussion of a flipped classroom model (for Calculus) and of the use of self-graded homework*, 3rd Annual Georgia Scholarship of STEM Teaching and Learning Conference, Georgia Southern University, March 7, 2014
- January 2014* *Regularity, function spaces, and contractive extensions in Convergence-Approach Spaces*, Special session on Categorical Topology, Joint Mathematics Meeting (AMS-MAA), Baltimore, MD, January 15-18, 2014
- July 2013* (invited workshop leader in the *Asymmetric Topology* special session) *An introduction to convergence space methods in Topology*, 28th Summer Conference on Topology and its Applications, Nipissing University, North Bay, Canada, July 23-26

- March 2013 *Regularity and contractive extensions in convergence approach spaces*, 47th Spring Topology and Dynamics Conference, Central Connecticut State University, New Britain, March 23-25
- August 2011 *Diagonality and core compactness in spaces of open sets*, 11th Topological Symposium, Prague, Czech Republic.
- March 2011 *A unified theory of function spaces and hyperspaces: local properties*, Special session on Set-theoretic Topology, 2011 Spring AMS Southeastern sectional meeting, March 12-13, Georgia Southern University.
- March 2011 *Diagonality in spaces of open sets*, Special session on Categorical Topology, 2011 Spring AMS Southeastern sectional meeting, March 12-13, Georgia Southern University.
- July 2010 *When are the Isbell topology on $C(X, \mathbf{R})$ and its variants group topologies?* Algebra meets Topology: advances and applications, July 19-23, Barcelona, Spain.
- June 2010 (invited) *Consonance versus infraconsonance*, 2010 International Conference on Topology and its Applications, June 26-30, 2010, Nafpaktos, Greece.
- December 2009 (invited) *On function space structures induced by hyperspace structures*, Aspects of Contemporary Topology IV, December 13-19, Antwerp, Belgium
- March 2009 *When is the Isbell topology a group topology?* Spring Topology and Dynamics Conference, March 7-9, 2009, Gainesville, FL.
- October 2008 (invited) *Differentiability as continuity—an update*. Special Session on Set-Theoretic Topology, AMS sectional meeting, Huntsville, AL.
- June 2008 (invited workshop leader) *Convergence Structures*, Advances in Set-Theoretic Topology, Conference in honor of T. Nogura's 60th birthday, Erice, Italy
- December 2007 (invited) *Exponential Objects in Top, PrTop and ParaTop*, Aspects of Contemporary Topology III, Antwerp, Belgium.
- July 2007 *Spaces of genotypes and of phenotypes*, 2007 Summer Conference on Topology and its Applications, Castelló, Spain
- March 2006 (invited) *Differentiability as continuity*, 2006 Spring Topology and Dynamics Conference, University of North Carolina at Greensboro, NC.
- July 2005 *Stability of local topological properties under product*, 2005 Summer Conference on Topology and its Applications, Denison University, Granville, OH.
- March 2005 (invited) *A convergence-theoretic approach to product theorems*, Southeastern AMS meeting, Special session in Honor of D.C. Kent, Bowling Green, KY.
- March 2004 *product of D-compactoid filters and product theorems for spaces and maps*, 2004 Spring Topology and Dynamics Conference, University of Alabama at Birmingham, Alabama

- July 2003* *Product of compactoid filters and product theorems for spaces and maps*, 2003 Summer Conference on Topology and its Applications, Howard University, Washington, DC.
- July 2003* *Stability of local topological properties under supremum and product*, Conference in Honor of A. V. Arhangel'skii, Brooklyn College of CUNY, New York.
- January 2002* (invited) *Productively Fréchet spaces*; special session on Topology and its Applications at the San Diego AMS annual meeting.
- August 2000* *Coreflectively modified duality in convergences and convergence-approach spaces*; Categorical Methods in Algebra and Topology, Bremen, Germany.
- July 1998* *Product of sequential and first-countable spaces*; International School of Mathematics "G. Stampacchia", Convergence and Topology, Erice (Sicily), Italy.
- October 1997* *Whitehead theorem and hyperspaces*; French-Japanese conference on hyperspace topologies, La Bussière, France.
- September 1997* *A common convergence-theoretic approach to products; function spaces and hyperspaces*, XIV International Congress of Topology, Milazzo (Messina), Italy.

DIRECTION OF STUDENTS

Undergraduate research projects

- **At NJCU**

- Rayza Riofrio, *Continuity: a journey from the real line to convergence spaces*, Summer 2023
- Sally Mangassa, *Order and Spacetime*, Summer 2022
- Rachael Mozzarella, *Domain Theory and Topology*, Summer 2022
- Daniel Esteva, *Quaternions and their geometric interpretation*, Summer 2021
- Jason Gonzaga, *Spaces of ultrafilters and convergence spaces*, Summer 2020
- Abdelrahman Bereka, *Real Induction*, Summer 2019
- Leonardo Moncada, *Counting collisions, tracking beams of light, and Pi*, Summer 2019
- Ammer Abdin, *Convergence, filters and ultrafilters*, Summer 2019 and Summer 2020
- Angel Madera, *Fractals and fractal dimension*, Summer 2018
- Crystal Simon, *A geometric approach to the Basel problem*, Summer 2018
- Fadoua Chigr, *Elements of convergence theory*, Summer 2017 (presented at NJCU Research Symposium, April 18; at the STEM C2 Research Summit at Bergen Community College on April 13, 2018; at NYC Math Alliance Regional Conference, Dean University, September 15, 2018)
- Fares Boutrous, *Decomposition of continuity*, Summer 2017 (presented at NJCU Research Symposium, Spring 18)

- **At Georgia Southern**

- Daniel Diaz Casanueva, *Quotient of metric spaces*, Fall 2012-Spring 2013
- William Trott, *Ultrafilter techniques in Ramsey Theory* (Fall 2011 and Spring 2012: presented at Eagle Undergraduate Mathematics Conference and Kennesaw Mountain Undergraduate Mathematics Conference in Spring 2012)
- Anh Tran, *Structure of spaces of ultrafilters and combinatorial applications* (Fall 2009 and Spring 2010: presented at Eagle Undergraduate Mathematics Conference in Spring 2010)
- Jessee Nesmith, *Filters and compactifications*, Spring and Fall 2008

- **Other undergraduate research direction work:**

Bryan Castro Herrejón, UNAM, Mexico. Submitted preprint *On connected subsets of a convergence space*

- **Other:** gave preparation sessions for the annual Putnam Competition at Georgia Southern every year (2004-2014)

Master's Thesis directed

- **At NJCU**

- Luis Rodriguez, *On theories of integration*, Spring and Summer 2023
- Fadoua Chigr, *Convergence spaces theory and applications in Topology*, Fall 2018-Fall 2019

- Naima Ouabourrane, *On the concepts of limit and of infinitesimal*, Fall 2017-Spring 2018
- Abdurhaman Pillana, *Elements of fixed point theory*, Fall 2016-Spring 2017
- Sofiane Boudib, *On the development of the concept of group*, Fall 2015-Spring 2016
- Jose Pedraza: *Filters, grills and Ramsey Theory*, Spring 2015-Spring 2016
- Zineb Hassoune, *Concepts of integral*, Fall 2015-Fall 2016
- Ray Macchiarola: *Decomposition of continuity*, Fall 2014-Spring 2015

- **At Georgia Southern**

- William Trott, *Elements of convergence approach space theory*, May 2014
- Nathan Farmer, *Compact filters and the Arzelà-Ascoli Theorem*, May 2012

Work with PhD students

- **PhD jury:**

- Karen Van Opdenbosch, *A study of topological properties in approach theory using monodical topology*, Free University of Brussels and University of Antwerp, Belgium, February 2019
- Emilio Angulo-Perkins, *Algunas adjunciones a $GConv$* , Benemétrica Universidad Autónoma de Puebla, Mexico, April 2021
- Jesús González Sandoval, *Levantamiento de estructuras, operadores límite y subcategorías coreflexivas en categorías topológicas*, Benemétrica Universidad Autónoma de Puebla, Mexico, August 2021

- **Informal co-direction of PhD thesis:**

- Meryem Ateş, *Applications of approach theory to hyper topologies*, director: Sevda Sağiroğlu Peker, Ankara University, Turkey, June 2024
- Jesús González Sandoval, *Levantamiento de estructuras, operadores límite y subcategorías coreflexivas en categorías topológicas*, director: Juan Angoa, Benemétrica Universidad Autónoma de Puebla, Mexico, August 2021
- Emilio Angulo-Perkins, *Algunas adjunciones a $GConv$* , director: Juan Angoa, Benemétrica Universidad Autónoma de Puebla, Mexico, April 2021, *Cum Laude*

SERVICE
Department and University Services at New Jersey City University

Departmental Committees and service:

- Department Chair (Summer 2021-Spring 2024)
- Department co-chair (Fall 2020-Summer 2021)
- Curriculum committee (Fall 2014-Spring 2021)
- Graduate committee (Fall 2014-Spring 2021)
- Lab Coordinator (Spring 2015-Fall 2019)
- Tutoring lab Coordinator (Fall 2017-Fall 2019)

University service:

- Implementation of Math placement coordinator (Spring 2025)
- Assessment task force (Fall 2025-present)
- ACE student success lab (Spring 2022-Fall 2022)
- First-Gen Champion Institute (Fall 2023)
- Academic Master Plan, Goal III (Community of care) facilitator (November 2023)
- University Personnel Committee, co-chair (Fall 2023-Spring 2024)
- Honors Program Committee (Summer 2018-Spring 2021)
- SBR (Separately Budgeted Research) Task Force (Spring 2017-Summer 2017)
- SBR steering committee (Fall 2018-Fall 2019)
- Institutional Review Board member (Fall 2015-Summer 2020)
- Senate Planning, Development & Budget Committee (Fall 2015-Spring 2017)

Other:

- Represents the College of Arts and Sciences at most university functions
- Represented the Mathematics Department at multiple Undergraduate and graduate Open House and admission events (2015-2024)
- KME honor society speaker (November 2014): *counting with Buzz: to infinity and beyond!*
- CTL workshop (February 2015): *Getting started with LyX*
- Presidential research roundtable (February 2015): *Compactness for all!*
- Provost Research day presentation, October 2017
- Research Symposium podium presentation, April 2018
- Organization of a major international conference (51st Spring Topology and Dynamical Systems Conference, NJCU, March 8-11, 2017)

Department and University Services at Georgia Southern

University Senator: Fall 2010—Summer 2013

University Senator Alternate: Spring 2010

Departmental Committees:

- Strategic Planning committee (2005)
- Colloquium committee (2005-2009, 2010-2012, Chair 2006-2009)
- Graduate committee (2007-spring 2008; Spring 2009, Fall 2013-Spring 2014)
- Hiring Task Force (April-May 2008)
- Rubrics committee (Spring 2010)
- Search Committee for Lecturer (Fall 2010-Spring 2011)
- Post-tenure committee (Fall 2012-Spring 2013)
- Election committee (Fall 2013-Spring 2014)
- Course and Curriculum Committee (Chair Fall 2013-Spring 2014)

College-level Committees:

- Teaching Committee Chair (2008)
- Search Committee for Associate Dean (Fall 2010)
- Bylaws ad-hoc committee (Spring 2011)
- Governance Committee (Fall 2011-Fall 2013)

University-level Committees:

- Comprehensive Review Program University Task Force (Fall 2008-Spring 2009)
- Parking and Transportation Committee (Fall 2011)
- University Faculty Welfare Committee (Fall 2011-Spring 2013)
- Faculty Senate Executive Committee (Fall 2011-Summer 2013)
- University Faculty Research Committee Chair (Fall 2011-Spring 2012)
- Faculty Senate Moderator and Chair of Senate Executive Committee (August 2012-August 2013)
- Community Engagement Committee (Summer 2012-Summer 2013)
- Space Planning Committee (Summer 2012- Summer 2013)
- Institutional Effectiveness Committee (Summer 2012- Summer 2013)
- SACS Steering Committee Action Team #1, Governing Board (Spring 2013-Spring 2014)
- Feasibility study team hotel/conference center (Summer 2013-Spring 2014)
- AAUP Shared governance committee, Georgia Southern Chapter (Spring 2010-Spring 2014)