




Who am I at FGCU?

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Associate Professor and Graduate Program Coordinator



FGCU Math Club's "Meet the Faculty" Event
October 2020

- ① As an Educator
- ② As a Student and Researcher
- ③ As a Mentor
- ④ Final Remarks

1 As an Educator

| 2

I consider myself a self-reflective teacher who emphasizes on developing students'

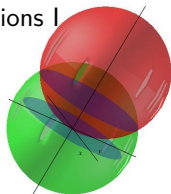
- 1 critical thinking skills within the context of mathematics, and
- 2 understanding of the role and usage of computers to solve problems.

Undergraduate Level

MAC 1147 Precalculus
MAC 2233 Elementary Calculus
MAC 2311 Calculus 1
MAC 2312 **Calculus 2**
MAC 2313 **Calculus 3**
MAP 2302 **Diff. Equations**
MHF 2191 Math. Foundations
MAA 4402 **Complex Variables**
MAA 4226 Analysis I
MAA 4227 Analysis II

Graduate Level

MAA 5228 **Modern Analysis I**
MAA 5229 **Modern Analysis II**
MAS 5145 Adv. Linear Algebra
MAA 5406 **Complex Analysis I**
MAT 5932 Calculus of Variations
MAP 5316 Diff. Equations I



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- ▶ Ph.D. Mathematics, Michigan State University
Dissertation: Thematic Indices and Superoptimal Singular Values of Matrix Functions

- ▶ *Principal Fields of Interest:*
 - > Matrix Analysis: Spectra and pseudospectra
 - > Operator Theory: Hankel and Toeplitz operators on Hardy spaces of vector-valued functions, and integral operators on Lebesgue spaces
 - > Inverse Problems: Deconvolution problems
 - > Complex Function Theory: Cyclic vectors in Dirichlet-type spaces

- ▶ *Some co-organized conferences*
 - > *AMS Special Session on Operator Theory and Approximation in Spaces of Analytic Functions*. Joint Mathematics Meetings 2021.
 - > *Completeness problems, Carleson measures, and spaces of analytic functions*. 2015. *Institut Mittag-Leffler* (of the Royal Swedish Academy of Sciences).

2 My four most recent publications

- 1 C. Brooks, A. Condori, and N. Seguin. [Polynomially Isometric Matrices in Low Dimensions](#). Amer. Math. Monthly. *In press*.
- 2 A. Condori. [Maximum principles for matrix-valued analytic functions](#). Amer. Math. Monthly 127 (2020), no. 4, 331–343.
- 3 C. Brooks and A. Condori. [A Resolvent Criterion for Normality](#). Amer. Math. Monthly 125 (2018), no. 2, 149–156.
- 4 C. Bénéteau, A. Condori, C. Liaw, W. Ross, and A. Sola. [Recent Progress on Operator Theory and Approximation in Spaces of Analytic Functions](#). American Mathematical Society, Providence, RI, 2016. ISBN: 9781470423056.



3 Outline

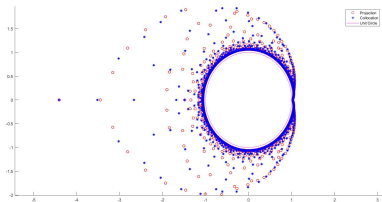
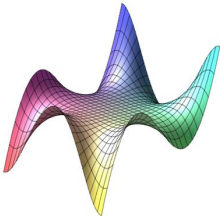
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I support activities that may facilitate development of critical thinking outside of the classroom, encourage students to step out of their comfort zone, and provide constant feedback.

▶ Local Supervisor of the Annual **Virginia Tech Regional Mathematics Contest** since 2011

▶ Direct and supervise mathematical research of both undergraduate and graduate students



3 Student research directed at FGCU

- ▶ Joaquin Barbara Llanes - *First kind Volterra equations*, 2020
- ▶ Sandra Ferris - *Singular Values of the Volterra Operator*, 2020
- ▶ Caden Ryals-Luneburg - *Saddle Points of Analytic Matrix-Valued Functions*, 2020
- ▶ Nicholas Seguin - *Maximum Norm Principles and Pseudospectra*, 2017
- ▶ Nicholas Camacho - *Pseudospectra and Matrix Behavior*, 2016
- ▶ Jon Whelpley - *Analytic Number Theory and Dirichlet series*, 2016
- ▶ Raymond Centner - *The Hilbert Space of Dirichlet Series H^2 and its Multipliers*, 2016
- ▶ Joseph W. Grenier - *Optimal Bioeconomics: A Multi-Species Fishery Model.*, 2015
- ▶ Santiago Salazar - *A Well-Known Result and its Dependency on the Axiom of Choice.*, 2014

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4 Should I reach out to become a research mentee?

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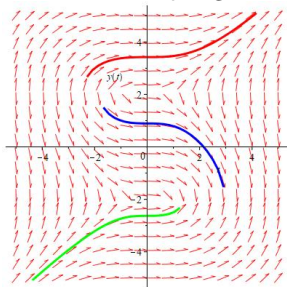
Basic checklist:

- ▶ Are you enthusiastic, motivated, and persistent?
- ▶ Are you able and willing to invest time and effort to work “in the dark”?
- ▶ Have you taken any of my courses? Well, *there is Spring 2021!*
 - > Differential Equations

- > Complex Variables

$$\sum_{n=1}^{\infty} \frac{(-1)^n}{1+n^2} = \frac{1}{2} \left[\frac{\pi}{\sinh \pi} - 1 \right]$$

$$\int_0^{2\pi} e^{\cos \theta} \cos(3\theta - \sin \theta) d\theta = \frac{\pi}{3}$$



Thank you!