JOHNNY LENN FONSECA

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RESEARCH INTERESTS

Quantum Groups, Representation Theory, Vertex Operator Algebras, Category Theory, and Quantum Knot Invariants

EDUCATION

| Rutgers University – New Brunswick, New Jersey Ph.D. Candidate in Mathematics, GPA: 3.909 | 2018 – Present |
|---|----------------|
| Florida International University – Miami, Florida | |
| M.S. in Mathematical Sciences, GPA: 3.970 | 2017 - 2018 |
| B.S. in Mathematics, GPA: 3.950 (Summa Cum Laude) | 2015 - 2017 |
| B.S. in Statistics, GPA: 3.950 (Summa Cum Laude) | 2015 - 2017 |
| University of Florida – Gainesville, Florida | |
| Coursework in Chemical Engineering | 2013 - 2014 |

PROFESSIONAL EXPERIENCE

| Rutgers University – New Brunswick, New Jersey | |
|--|------------------------|
| Mathematics Instructor for Advanced Calculus for Engineers | May 20202 – July 2020 |
| Graduate Teaching Assistant | Aug. 2018 - Present |
| Florida International University – Miami, Florida | |
| Graduate Teaching Assistant | Aug. 2017 – May 2018 |
| Research Assistant at Computational Cognitive Neuroscience Lab | March 2016 – Aug. 2016 |
| Mathematics Tutor at Student-Athlete Academic Center | June 2016 – Aug. 2016 |
| Learning Assistant | Aug. 2015 – April 2017 |

PUBLICATIONS AND PRESENTATIONS

- L. Carbone, T. Coelho, J. Fonseca, J. Meng, S. H. Murray, F. Thurman and S. Zhu *Infinite dimensional Lie algebras:* commutators and structure constants In preparation (2020)
- "Continuation of Semisimple Lie Algebras." Graduate Algebra and Representation Theory Seminar of Rutgers. (Sept. 2019)
- "From Abstract Simplicial Complexes to Clique Chains." Math Club of FIU. (Dec. 2017)
- Fabian A. Soto, Emily Zheng, Johnny Fonseca, F. Greg Ashby *Testing Separability and Independence of Perceptual Dimensions with General Recognition Theory: A tutorial and new R package (grtools)*. Frontiers in Psychology. (2016)

HONORS AND ORGANIZATIONS

| American Mathematical Society Student Member | 2019 – Present |
|---|----------------|
| • FIU Outstanding Academic Achievement Certificate | 2018 |
| Phi Beta Kappa Student Member | 2017 – Present |
| • UWS Lucille E. Snaith Memorial Scholarship | 2016 - 2017 |
| Golden Key International Honor Society Student Member | 2015 – Present |
| • Student Government Association of FIU STEM Scholarship | 2015 - 2016 |

SKILLS

Proficient in R, Maple, MATLAB, Python, Java, LaTeX, and Excel. Intermediate verbal and written Spanish communications skills.