Marcos Lopez

Curriculum Vitae

Department of Mathematics
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Education

2012 – 2015	**Ph.D**, *The University of Cincinnati*, Mathematics, Cincinnati, OH. Advisor: Professor Nageswari Shanmugalingam
2009 – 2012	**M.S.**, *The University of Cincinnati*, Mathematics, Cincinnati, OH.
2005 – 2009	**B.S.**, *The University of North Texas*, Mathematics, Denton, TX.

Research Interests

Geometric Analysis and Potential Theory.
Analysis on metric measure spaces, approximating metric spaces via graphs, Poincaré inequalities, doubling measures.

Teaching Experience

2020 -	**Associate Professor**, *Midwestern State University*.
2015 - 2020	**Assistant Professor**, *Midwestern State University*.
2009 - 2015	**Graduate Assistant**, *University of Cincinnati*. Outstanding Graduate Assistant Award for Excellence in Teaching in 2013 and 2014.

Publications

2022	**(Submitted) Distribution of constant terms of irreducible polynomials in $\mathbb{Z}p[x]$ whose degree is a product of two distinct odd primes**, *Notes on Number Theory and Discrete Mathematics*. Co-Authors: Sarah Cobb, Michelle Knox, Terry McDonald, Patrick Mitchell
2022	**(Accepted) Parallel Circles: A Math Club as a University Math Circle**, *Journal of Math Circles*. Co-Author: Sarah Cobb
2019	**Distribution of Constant Terms of Irreducible Polynomials in $\mathbb{Z}_p[x]$**, *Notes on Number Theory and Discrete Mathematics*, Vol 25, 2019, No. 4, pp 72-82. Co-Authors: Sarah Cobb, Michelle Knox, Terry McDonald, Patrick Mitchell
2019	**Learning through Play**, *Psychology of Mathematics Education - North American Chapter*, 2019 Proceedings, November. Co-Authors: Dittika Gupta, Timothy Hinchman, Jeffrey Hood, Austin Kureethara Manuel
2019	**Parking Lot Occupancy Tracking Through Image Processing**, *International Conference on Computers and Their Applications*, EPiC Series in Computing Volume 58, 265-270. Co-Authors: Terry Griffin, Kevin Ellis, Anthony Enem, and Christopher Duhan
2015	**Discrete Approximations of Metric Measure Spaces of Controlled Geometry**, *Journal of Mathematical Analysis and Applications*, 431(1), 73-98. Co-Author: Dr. James T. Gill, Saint Louis University

Service

Professional

2020 - **Texas Section of the Mathematical Association of America**, *co-director*, New Experiences in Teaching.

2020 - **Faculty in Residence**.

2019 - **Student Ambassadors**, *Faculty Advisor*.

2019 -2022 **Mathematics Association of America**, *Committee on Minicourses*.

2019 -2021 **Texas Section of the Mathematics Association of America**, *Nomination Committee for the Executive Committee*.

2018 - **Texas/Oklahoma Regional Undergraduate Symposium**, *Executive Committee*, Midwestern State University, Wichita Falls, Tx.

University

2018 - 2022 **Faculty Senate**, *Vice Chair*.

2018 - 2020 **Artist and Lecture Series Committee**.

2017 - 2020 **Core Curriculum Committee**.

Department

2017 - **Assessment of Proof Based Courses**, *Chair*.

2016 - **Midwestern State Math Club**, *Faculty Co-Advisor*.

2018, 2019 **Mathematics Department Lecturer Hiring Committee**.

2016 **Mathematics Department Secretary Hiring Committee**.

Fellowships and Workshops

2017 - **Texas/Oklahoma Regional Undergraduate Symposium**, *Co-Organizer*.

2021 **Participant**, *Mathematical Research Community*, American Matematical Association, Analysis in Metric Spaces.

2017 - 2019 **Texas Section NExT Fellow**, Texas Section of Mathematical Association of America.

2016 - 2018 **Project NExT Fellow**, Mathematical Association of America.

Jul 2017 **Participant**, *Research Experiences for Undergraduate Faculty (REUF)*, Institute for Computational and Experimental Research in Mathematics (ICERM), Providence, RI.

Aug 2017 **Organizer**, *Project NExT Panel*, Planning and Teaching Upper-level Courses, MAA MathFest. Chicago, IL.

Presentations

Oct 2022 **Presentation**, *Applying to 4 year institutions*, University of Cincinnati, Cincinnati, OH.

2016 - 2022 **Presentation**, *Mathematical Tools*, Youth Engineering Summer Camp at Midwestern State University, Wichita Falls, TX.

Feb 2020 **Presentation**, *Artificial Intelligence and Machine Learning: The Undergraduate Experience*, Faculty Forum, Wichita Falls, TX.

Jan 2020 **Presentation**, *Distribution of Constant Terms of Irreducible Polynomials in* $\mathbb{Z}_p[x]$, Joint Mathematics Meeting, Denver, CO.

Jan 2020 **Presentation**, $(MC)^2$ *Math Club as a Math Circle*, Joint Mathematics Meeting, Denver, CO.

Jul 2019 **Presentation**, *Play! Learn! Play! Learn!*, Conference on the Avancement of Mathematics Teaching, San Antonio, TX.

Mar 2019   **Presentation**, *Parking Lot Occupancy Tracking Through Image Processing*, CATA 2019, Waikiki, HI.

Mar 2019   **Presentation**, *Bad Math Clubs Borrow...*, MAA Section Meeting, Stephenville, TX.
Tarleton State University

Oct 2018   **Presentation**, *Applying to 4 year institutions*, University of Cincinnati, Cincinnati, OH.

Aug 2018   **Presentation**, *Building a Research Group on an Empty Lot*, MAA MathFest, Denver, CO.

Oct 2015   **Presentation**, *Discretized Metric Measure Spaces with Controlled Geometry*, University of North Texas, Denton, TX.