

Henry L. Alder Awards

Alexander Diaz-Lopez

Villanova University

Dr. Alexander Diaz-Lopez, originally from Puerto Rico, is currently a professor at Villanova University, where he has had a significant impact on his department. Dr. Diaz-Lopez uses his considerable energy to foster community amongst faculty and students through several groups he facilitates. He helped to create a space for regular discussions about teaching amongst his colleagues through InDLG (Informal Department Lunchtime Gathering). In addition, he and a colleague match undergraduate students with research mentors through a program they call Co-MaStER (Community of Mathematicians and Statisticians Exploring Research). Dr. Diaz-Lopez himself has mentored students in research, including a team supported by a grant from the Center for Undergraduate Research in Mathematics (CURM). Together with two colleagues, he also founded the NSF-funded DREAMS (Discovering Resources and Exploring Advanced Mathematics and Statistics) program. The program exposes students to interesting mathematics problems and teaches them about career opportunities and graduate school.

Dr. Diaz-Lopez's penchant for starting programs that benefit students extends well beyond his own department. He helped to found Math SWAGGER (Mathematics Summer Workshop for Achieving Greater Graduate Educational Readiness), a program that helps students underrepresented in the mathematical sciences prepare for and succeed in graduate school. The program supported 29 students in forming a virtual community in the summer of 2020, a particularly challenging moment when students were in need of extra support. He is also a co-founder of *Lathisms*, a website that highlights accomplishments of Latinx and Hispanic mathematicians. In addition, Dr. Diaz-Lopez served the math community through his editorial work for the AMS Notices and two AMS blogs, including the PhD + epsilon blog that serves as a useful resource for new faculty.

For his care for students and drive to make the math community a more supportive and inclusive place, we enthusiastically recommend Dr. Alexander Diaz-Lopez for the 2021 Henry L. Alder Award.

Response

I am honored to receive the 2021 MAA Henry L. Alder Award. I believe that, to a degree, we are products of our environments. I want to thank my parents, wife, and sister for providing a healthy and thriving environment during my life and for supporting me through all my work.

I want to take this space to thank the (s)heroes behind my successes. I would have not received this award without their commitment to creating environments where every person is supported and can thrive. In particular, I want to thank: Frank Morgan, Reyes Ortiz, Edray Goins, Ivelisse Rubio, Matthew Dyer, Pamela Harris, Erik Insko, Alicia Prieto-Langarica, the Project NExT team, Amanda Lohss, Kathryn Haymaker, and Peter Muller for their work and support to me and to the mathematics community.

Finally, I want to thank my students for being willing to be mentored, for teaching me (I learn from them as much as they learn from me), and for engaging in challenging yet rewarding experiences. At the end of the day, they are the ones who make everything worth it.

Bio

Alexander Diaz-Lopez grew up in the small town of San Lorenzo in the archipelago Puerto Rico. While numbers and games always intrigued him, it wasn't until college that Alexander started envisioning a career as a mathematics teacher and researcher. After completing the SMALL REU program and MSRI-UP,

Alexander finished his bachelor's degree in Mathematics at the University of Puerto Rico, Mayagüez. Five years later he completed his PhD at the University of Notre Dame under the supervision of Matthew Dyer. His research is in the areas of combinatorics and Coxeter group theory.

After spending one year as a faculty at Swarthmore College, Alexander joined the Department of Mathematics and Statistics at Villanova University in 2017. Alexander has been involved in some national initiatives such as *Lathisms* and Math SWAGGER, and local ones such as Villanova's DREAMS program, Co-MaStER program, and InDLG. Through it all his goal remains to create programs and spaces where all members are welcomed, heard, and supported, giving everyone an opportunity to thrive.

Alexander loves spending time with his wife, nephews, and two dogs: Master Yoda and Kylo, and playing sports, board games, and video games.