

# Latinxs and Hispanics in Mathematical Sciences



## Kamrine Poels

Postdoctoral research fellow – Pfizer

Dr. Kamrine Poels is originally from Mexico and moved to the United States with her family at the age of ten. She wanted to be a physician from an early age, so she pursued a bachelor's degree in biology when she enrolled at the University of Arizona in Tucson. In her sophomore year, her calculus professor, William Yslas Velez, convinced her to add a mathematics major to her degree. A year later, she changed her major and applied to Research Experiences for Undergraduate Students (REU) in statistics. After participating in a summer program in biostatistics at the University of Iowa, she decided to pursue a doctoral degree in statistics or biostatistics. Following her graduation from college, she joined a Research Scholar Initiative program at Harvard University as a post-baccalaureate fellow. In 2016, she entered the Biostatistics doctoral program at Harvard and was advised by Franziska Michor. Dr. Poel's dissertation used mathematical and stochastic models to identify optimal drug dosing schedules in cancer therapy.

During her graduate studies, she worked with Pfizer researchers. Nearing the end of her studies, her Pfizer collaborators informed her of an open position for a postdoctoral research fellow in the quantitative systems pharmacology group to which she applied. Dr. Poels is currently a postdoctoral research fellow at this biopharmaceutical company and hopes to not only apply her knowledge of mathematical modeling to her research but also cultivate a deeper understanding of cancer evolution.

In her current position, Dr. Poels uses a variety of mathematics and mathematical tools. As a statistician, she frequently relies on typical methods for point and interval estimation, such as maximum likelihood, OLS, bootstrapping, etc. She is also interested in ordinary differential equations to model dynamic systems within a tumor or approximate stochastic processes. Most importantly, she recognizes that one's flexibility to code in multiple computing languages could be most advantageous.

Dr. Poels advised her undergraduate students to network with faculty and graduate students before applying to graduate school. Once in graduate school, she highly recommends for students seeking to work in industry to apply to industry internships, with permission from the student's graduate program. A large number of new employees in industry have experience, either through an internship or postdoctoral position, before obtaining a full-time position in the same company.

*“Hispanic Heritage Month celebrates the most diverse community of people in the United States. Hispanics span different races, foods, and traditions but are unified by an immigrant story and sometimes brought together by the beautiful language of Spanish. Sadly, some Hispanics encounter hardships on a daily basis because of their Hispanic identity. The commemoration of Hispanics who have been able to succeed against all odds and have contributed to the American culture can inspire other Hispanics to do the same. For this reason, Hispanic Heritage Month is an uplifting and insightful moment of the year for me.”*

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Lathisms was founded in 2016 in order to showcase the contributions of Latinx and Hispanic mathematicians during Hispanic Heritage Month, which is celebrated in the United States from September 15 and October 15 every year. During this time, we feature/reveal a prominent Latinx/Hispanic mathematician daily. See all the featured mathematical scientists at [LATHISMS.ORG](http://LATHISMS.ORG).

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