UC SANTA BARBARA

THE Current

November 13, 2018
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Calculated Honors

Recognized for their outstanding contributions to the advancement, use and communication of mathematics, UC Santa Barbara Professors Hector Ceniceros and Zhenghan Wang have been named 2019 fellows of the American Mathematical Society (AMS). The association of mathematicians promotes mathematical research and scholarship.

“The mathematics department is extremely pleased that the American Mathematical Society has decided to recognize the stature and contributions of Hector and Zhenghan,” said Department Chair Jon McCammond. “AMS Fellows are meant to represent the creme of the crop — those at the very top of the discipline.”

Ceniceros’ work focuses on techniques to understand physical systems that have different properties on different scales, such as complex fluids and soft materials. Currently, he is investigating the design of machine learning techniques to accelerate the discovery of new materials and create more efficient mathematical models.

“It is always great to be recognized by our peers,” said Ceniceros, who researches numerical analysis. “The American Mathematical Society plays a leading role in promoting mathematical research and education around the world. I am honored by the distinction of being elected a fellow in 2019 class for my cumulative work both as a mathematician and an educator.”

Wang considers himself a maverick mathematician, regarding the field not as a collection of different branches, but as a way of thinking about and solving problems. “I am grateful to my colleagues at AMS, as becoming a fellow has encouraged my collaborators, postdocs and students that good mathematics is not necessarily dictated by traditional boundaries,” he said.

Wang’s mathematics describe exotic phases of matter. “I tell my children that my job is to study electrons under extreme conditions,” he said. Under extremely cold conditions and magnetic fields, electrons work together to form an exotic form of matter called an anyon. These quasi-particles may lend themselves toward building a quantum computer, which places some importance on understanding the mathematics behind the phenomenon.

With the AMS honor, Ceniceros and Wang join some of the most accomplished mathematicians in the country. The two also join 14 of their UC Santa Barbara colleagues as AMS fellows — a large number for a department its size, according to McCammond.

About UC Santa Barbara

The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we draw inspiration from the beauty and resources of our extraordinary location at the edge of the Pacific Ocean.