Honoring women in mathematics

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Lisa Fauci, professor of mathematics at Tulane University, was chosen to deliver the 2016 Kovalevsky Lecture "for her pioneering contributions to mathematical and computational modeling of aquatic locomotion, microorganism motility and fluid dynamics of human reproduction." (Photo by Paula Burch-Celentano)

Sonia Kovalevsky was the most widely known Russian mathematician of the 19th century as well as an advocate for women's rights and the first modern European woman to attain a full professorship.

It's no wonder that well over a century later, she is celebrated worldwide. There are high school math days and lectures, one of the most prestigious being the Kovalevsky Lecture, delivered annually at the meeting of the Society for Industrial and Applied Mathematics (SIAM). At this year's meeting July 11-15 in Boston, Tulane University mathematics professor Lisa Fauci will give the lecture, having been chosen for the honor by SIAM and the Association for Women in Mathematics "for her pioneering contributions to mathematical and computational modeling of aquatic locomotion, microorganism motility and fluid dynamics of human reproduction."

She will speak on the "the biofluids of reproduction."

"It's a joint prize from both organizations," Fauci said. "It highlights the importance of applied math and scientific research and at the same time it honors the contribution of women in applied mathematics."

Fauci's career combines rigorous asymptotic analysis and biological data to validate computational models. She boasts a history of service to the mathematical community and a legacy of mentoring early career scientists and women in mathematics.

She is a prolific researcher who collaborates extensively with other applied mathematicians, computational scientists and experimental biologists and has an impressive list of publications. For the last 28 years, her research has been funded by an uninterrupted string of federal grants from the National Science Foundation, the U.S. Department of Energy, the National Institutes of Health, the Army Research Office and the Gulf of Mexico Research Initiative. She has given lectures on biological fluid dynamics throughout the world.

Fauci said she is especially honored to deliver the Kovalevsky Lecture, as it honors one of the world's most brilliant mathematicians.

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