Professor Angxiu Ni joins UC Irvine Mathematics Department

Professor Ni studies applied and computational dynamical systems and stochastic processes.

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Professor Ni gives new formulas and develops efficient algorithms to calculate how a system reacts to small changes, even in very complex systems with lots of variables that behave unpredictably.

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Angxiu Ni joined the Department of Mathematics this year as an Assistant Professor. Ni received his Ph.D. in Applied Mathematics from the University of California, Berkeley under the guidance of John Strain. Before joining UC Irvine, Ni was at the Yau Mathematical Sciences Center at Tsinghua University as an assistant professor, and then held a postdoc position at Beijing International Center for Mathematical Research at Peking University. Ni researches applied and computational dynamical systems and stochastic processes – areas concerned with how things change and evolve overtime. Ni derives new formulas and develops efficient algorithms to calculate how a system reacts to small changes, even in very complex systems with lots of variables that behave unpredictably. “When the system is both unstable and high dimensional and has low noise, you will not only need new algorithms, you also need new formulas,” said Ni. Mathematicians like Ni work to find accurate and efficient approximations for these complex situations. As an applied mathematician, he hopes to teach students how to solve real-life problems using math and data so they can gain skills applicable to real-world scenarios.

This article was written by Ph.D. student Jenny Tran from the UC Irvine Department of Mathematics. Tran is a 2024-2025 UC Irvine School of Physical Sciences Science Communication Fellow.

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