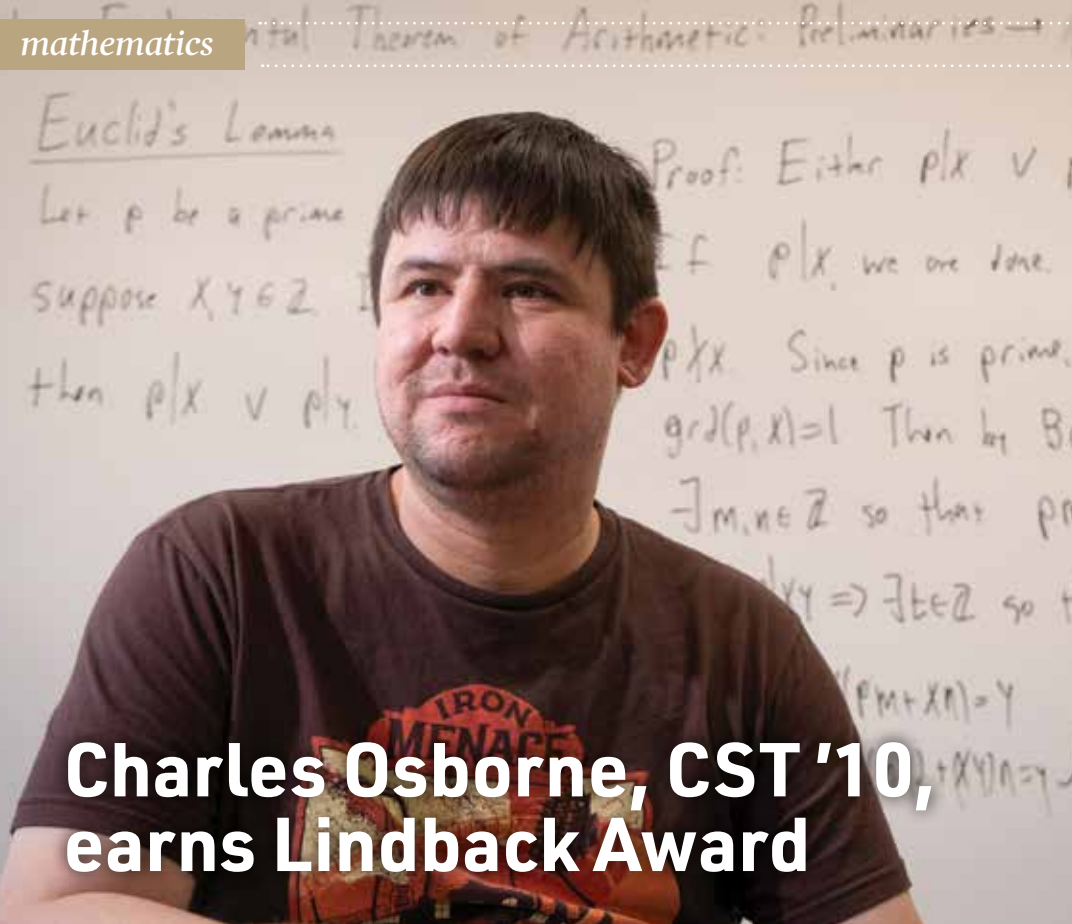




Charles Osborne, CST '10, earns Lindback Award

PHOTO: JOSEPH V. LABOLITO

Charles Osborne, associate professor of instruction, received the Temple University Lindback Distinguished Teaching Award for 2024-2025. The award recognizes and honors faculty members who epitomize the highest levels of sustained teaching excellence in a classroom, laboratory or clinical setting.

“Winning the Lindback Award is my proudest accomplishment to date,” said Osborne, who joined the department after earning his doctorate at Temple. “I am grateful and indebted to those who set up the opportunities I have had over my career. I’m glad I was able to justify their belief in me.”

Osborne is inspired by seeing the intellectual development of his students. “Seeing them progress from being new to a concept to being able to solve related problems and then to being able to learn more about the topic

independently is greatly rewarding,” said Osborne, whose areas of interest include calculus and the theory of numbers. “In addition to the mathematical content of a course, it is my hope that their time in my classes helps students gain understanding of how to reason logically and more generally how to learn.”

What most stands out for Osborne are those times when students tell him about their acceptance to graduate school or their new job starting after graduation. “I also remember looking over scholarship applications and seeing that a student had said my class set up a strong foundation for further study of mathematics,” he said. “This one really stands out for me since the impact described is more immediate (within the student’s time at Temple). These are the things that reassure me that I chose the right career.”

MATH ALUMNA EARNS BABUŠKA THESIS PRIZE

by Greg Fornia

Nour Khoudari, CST '24, received the 2025 Ivo and Renata Babuška Thesis Prize in recognition of the outstanding contributions in her PhD thesis, titled “From Microscopic to Macroscopic Scales: Traffic Waves and Sparse Control.” Khoudari is currently a Golomb Visiting Assistant Professor at Purdue University.

The annual prize is awarded to the author of “an outstanding PhD thesis in mathematics, interdisciplinary in nature, possibly with applications in other fields.” Khoudari works in the area of vehicular traffic modeling and control, with emphasis on bridging the gap between the dynamics of models at microscopic vehicle-scale and macroscopic city-scale flow patterns in unstable traffic regimes. This rapidly growing research area uses ideas and tools from modeling, data science, kinetics, transportation engineering and other fields to provide novel mathematical foundations for understanding nonlinear traveling traffic waves.

“I am truly honored to receive the Babuška Thesis Prize,” said Khoudari. “I want to extend my sincere appreciation to my advisor, Benjamin Seibold, for his invaluable guidance and support that helped shape both my thesis and my mathematical maturity. I also want to thank the Temple Mathematics Department for providing a stimulating research environment and for nominating me.”



SEIBOLD PART OF IEEE WINNING PROJECT

by Greg Fornia

The multi-institution CIRCLES (Congestion Impacts Reduction via CAV-in-the-loop Lagrangian Energy Smoothing) consortium, on which Professor Benjamin Seibold leads the Temple team, has received the IEEE ITS Institutional Lead Award.

The award is presented for significant contributions to the research and applications of intelligent transportation systems (ITS)-related technologies. CIRCLES was cited for “conducting the largest open-road traffic control experiment and data capture to date, enabling insight on the effects of high penetration of connected and automated vehicles on safety, traffic flow and energy consumption.”

CIRCLES aims to reduce instabilities in traffic flow, called “phantom jams,” that cause congestion and wasted

energy. When a driver encounters a temporary traffic jam for no apparent reason, this might be a phantom jam occurring naturally because of collective human driving behavior.

Seibold’s prior work on closed-course testing demonstrated that phantom jams can be reduced using autonomous vehicle technologies and specially designed algorithms. CIRCLES extends this technology to real-world traffic, exploring how assisted driving technology can be leveraged to provide energy savings for all vehicles on the road.

The CIRCLES project was also extensively featured throughout a special issue of IEEE Control Systems magazine, which covered the project from its mathematical foundations to its impacts on transportation science and engineering.

FACULTY NAMED SLMATH RESEARCH PROFESSORS

Professor Mathew Stover and Associate Professor Sam Taylor have been named SLMath Research Professors for the programs “Geometry and Dynamics for Discrete Subgroups of Higher Rank Lie Groups” and “Topological and Geometric Structures in Low Dimensions,” respectively. The Simons Laufer Mathematical Sciences Institute (SLMath), formerly known as the Mathematical Sciences Research Institute (MSRI), is an independent non-profit that has served the mathematical sciences community for 40 years. Research professorship positions are reserved for researchers who can make key contributions to their programs including the mentoring of postdoctoral fellows.



PHOTO: CONNOR McVAIL

NUMBER THEORIST JOINS MATHEMATICS FACULTY

by Greg Fornia

Ari Shnidman, associate professor, joined the Mathematics Department in summer 2025. He earned his doctorate in mathematics at the University of Michigan and then was a postdoc at Boston College for three years.

Shnidman’s interests include arithmetic statistics, rational points on curves and abelian varieties, special values of L-functions and algebraic cycles. Before joining Temple, he was a senior lecturer and then an associate professor at Hebrew University of Jerusalem.

While at Hebrew University, Shnidman was founder and director of the research experience for undergraduates (REU) at the Einstein Institute of Mathematics, one of the world’s leading research institutes where faculty and graduates include many leading mathematicians. During the 2024-2025 academic year, he was a member of the Institute for Advanced Study in Princeton, New Jersey, one of the world’s leading centers for curiosity-driven basic research.

Shnidman’s work has been published in *Duke Math Journal*, *Compositio Mathematica*, *Journal of the European Mathematical Society*, *Crelle’s Journal*, *Mathematische Annalen*, *Algebra & Number Theory*, *Journal of the London Mathematical Society* and *Research in Number Theory*, among others. He has earned research funding from the Israel Science Foundation and the European Research Council.