Adrien Stejer wins Department of Defense fellowship

The Physics & Astronomy grad student will use the support to study lithium-ion batteries.

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Stejer's fellowship will support research into the specific uses of lithium-ion batteries by the U.S. Navy.

Picture Credit:
UCI Advanced Power and Energy Program

Lithium-ion batteries can degrade, and Adrien Stejer, who’s a second-year graduate student in the UCI Department of Physics & Astronomy, recently won a fellowship from the U.S. Department of Defense that will give her the support she needs to understand the processes behind that degradation. It’s a hot-button issue to explore, especially since lithium-ion batteries are what power much of today’s electric vehicle fleet, and getting a grip on the lifespan of the batteries will be key in the continued electrification of the transportation industry. It’s work that Stejer does as part of UCI’s Advanced Power and Energy Program with Professor Iryna Zenyuk in the UCI Henry Samueli School of Engineering. Stejer’s fellowship, called the National Defense and Engineering Graduate Fellowship, will cover her tuition, give her a monthly stipend, a travel budget as well as health insurance coverage. The proposal that won her the distinction falls under the purview of the Office of Naval Research, and part of her work will involve developing machine learning algorithms that’ll help the Navy monitor the status of its batteries “with specific attention paid to the conditions that the Navy subjects their batteries to,” Stejer explained.

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