

October 17, 2014 | By Kristin Luciani

## Quantum Design Supports UC San Diego Physics Students with \$279,000 Gift

**Funding from alumni-founded technology company will support state-of-the-art lab equipment and curriculum**



*Mayer Hall. Photo by Erik Jepsen/UC San Diego Publications*

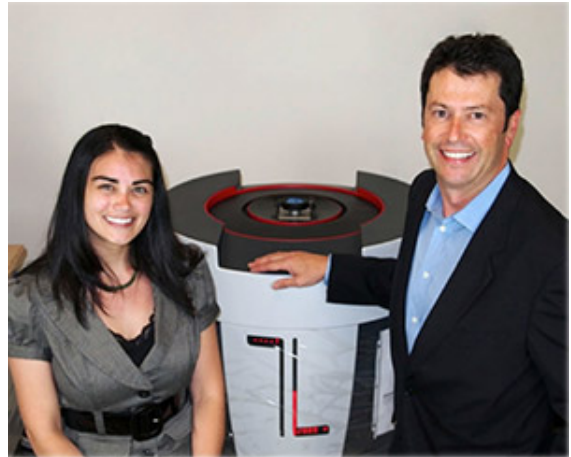
Physics majors at the University of California, San Diego will have the opportunity to gain experience and training on the same high-tech tools that industry researchers use, thanks to contributions from Quantum Design. The San Diego-based technology company—which has strong alumni ties to the campus—is providing in-kind and cash gifts totaling \$279,000 to update and modernize lab courses and instructional materials in the department of physics.

“UC San Diego department of physics alumni have played important roles in leadership, research and development at Quantum Design,” said Chief Technical Officer Stefano Spagna, who earned his Ph.D. in materials science from the campus in 1995. “We know that the ability for UC San Diego students to have direct access to state-of-the-art research equipment and technology, coupled with instruction in the foundations of physics, creates an ideal training ground for the next generation of physicists to work in numerous fields.”

Co-founded by UC San Diego alumnus Ronald Sager, Quantum Design specializes in the manufacturing of complex measurement instruments used in fundamental research of materials. Its tools are used by universities and research labs worldwide to study the characteristics of materials—often at very extreme temperatures—and have become the reference standard for magnetics and physical property measurements.

Both Spagna and Neil Dilley, applications physicist at Quantum Design, did their graduate studies with UC San Diego professor Brian Maple. They credit the experience with teaching them to be persistent in problem solving, to think critically and to drive their own research projects—qualities that have helped them to be successful in their professional careers.

“Part of this gift is about giving back to the university, and to the prestigious physics department that taught us so much,” said Dilley, who earned his Ph.D. in physics in 1999. “We want to do our part to help educate and train today’s students.”



*Recent graduate Ivy Lum, who received a scholarship established by Quantum Design, with Chief Technical Officer Stefano Spagna*

The department of physics and Quantum Design are collaborating to develop new curriculum for undergraduates that will provide practical experience using the latest industry research tools. In addition to learning the tools, the training is intended to teach students how to use their physics background to think critically about scientific experiments, rather than taking a passive, “push-button” approach to conducting research.

“Thanks to the generosity of Quantum Design, a long-term partner of the UC San Diego physics department, we have been able to bring 21st century instruments for materials discovery into a teaching lab designed for our undergraduate students,” said Dimitri Basov, chair of the department of physics. “We are grateful to have the support of alumni like Stefano and Neil, who are committed to creating opportunities for the next generation.”

Over the years, close to 100 UC San Diego students have interned with Quantum Design. In 2012, the company established the Ronald E. Sager Young Scientist Scholarship to support a female student in physics. Ivy Lum, the inaugural recipient of the award, recently completed graduate studies in the materials science and engineering program with a Master of Science degree, and is now working at Quantum Design.

In honor of the gift, the department of physics will host an invite-only symposium on Saturday, Oct. 18. To learn more about the UC San Diego department of physics, and opportunities to support its mission, visit [physics.ucsd.edu](http://physics.ucsd.edu).

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