

## PRESS RELEASE – NORTHERN ILLINOIS UNIVERSITY CENTER FOR P-20 ENGAGEMENT

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For Immediate Release/Publication

### **NIU STEM Café expands to Rockford to present “The 3D Printing Revolution”**

Maybe you’ve seen one at your child’s school, in a downtown museum, or even at the local big box home store. 3-D printers are popping up everywhere, getting cheaper, and are easier to use than ever before. Advances in 3D printing are actually allowing researchers and average folks to print everything from car parts to body parts. At the next [STEM Café](#), visitors can find out how 3D printing actually works and how it is changing lives.

Northern Illinois University’s STEM Café is headed to Rockford for the first time on Tuesday, April 7, where experts from NIU and [EIGERlab](#) will present “The 3D Printing Revolution.” The event will take place from 6:00 to 8:00 p.m. at [The Olympic Tavern](#) (2327 N. Main Street, Rockford), and will be directly followed by a tour of EIGERlab from 8:00 to 8:45 p.m. The event is free and open to the public. Food and drinks are available for purchase from The Olympic Tavern.

Judith Dymond, who coordinates STEM Cafés for NIU’s STEM Outreach, says she is excited to bring STEM Cafés to Rockford. “These are fun, casual gatherings where adults can eat, drink, and chat with STEM professionals about the latest scientific research.” She says that the programs are not lectures, but discussions where people can chat with experts and get their questions answered. “We think the people of Rockford will enjoy STEM Cafés. We hope that this will be the first of many in the Rockford area.”

Speaking at the event will be Dan Cataldi, Executive Director of NIU’s EIGERlab, and [Federico Sciammarella](#), Associate Professor of Mechanical Engineering in Northern Illinois University’s [College of Engineering and Engineering Technology](#). Dr. Sciammarella gave a fascinating talk at an NIU STEM Café event last fall, and is looking forward to introducing another public audience to the wonders of 3-D printing.

Additive manufacturing is the industry standard term for the process by which 3D printers create objects. These printers work from a digital, three-dimensional design and create objects by depositing materials layer by layer. This is different than traditional milling, where an object would be created by removing material from a solid block. Dr. Sciammarella says that this difference is what makes 3D printing greener than traditional manufacturing methods.

“Additive manufacturing builds parts with only the necessary amount of material,” says Dr. Sciammarella. As technology continues to evolve and improve, Dr. Sciammarella sees additive manufacturing as a way to reduce costs and prevent waste in the manufacturing process.

Dr. Sciammarella says that the goal of his talk is to help people understand the current landscape of research and industry in additive manufacturing. He says that researchers are working on commercial applications like printing cars, shoes, and hamburgers. They are also working on medical applications that seem right out of a science fiction novel: printing human skin, kidneys, and even hearts. “There are

a lot of neat things that are happening but we have a long road ahead to make it better,” Dr. Sciammarella says.

To see how some of those innovations are actually materializing in the real world, the public is invited to join Cataldi on a tour of [NIU’s EIGERlab](#) (605 Fulton Avenue, Rockford) where multiple types of additive manufacturing are available to entrepreneurs and researchers through the lab’s [Center for Product Development](#). Through the collaboration of education, business, and government, the lab “ties together innovation, collaboration, and entrepreneurship into a centrally located, state of the art mixed-use incubator, serving the region with leading edge business and engineering support services.”

NIU’s STEM Cafés occur monthly, and are one of many programs offered through NIU STEM Outreach, part of the [award-winning NIU Center for P-20 Engagement](#). In addition to [STEM Outreach](#) programs and events, the P-20 Center has developed the [STEM Read](#), [Economic Education](#), and [SmartSpace@NIU](#) programs, which all aim to engage the community in life-long learning.

For more information, visit [niu.edu/stem/STEM\\_Cafes](http://niu.edu/stem/STEM_Cafes) or contact Judy Dymond at [jdymond@niu.edu](mailto:jdymond@niu.edu) or (815) 753-4751.



**Photo Caption:** Fredrico Sciammarella, Associate Professor of Mechanical Engineering, works with a student. According to Sciammarella, 3D printing will ultimately have a huge impact on the way things are manufactured.