

# SATURDAY SCIENCE

## We are all stardust

A public lecture by  
**Dr. Catherine Deibel**

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### About the Topic

At the birth of our Universe, the Big Bang produced the initial abundances of hydrogen, helium, and lithium that are seen in our Galaxy today. All other elements, however, were synthesized in stellar environments through nuclear processes. Many of these heavy elements were produced in violent stellar explosions, such as classical novae, X-ray bursts, and supernovae, that are driven by nuclear reactions. This nucleosynthesis, which continues in our Galaxy, can be understood through the combination of stellar observations, computational physics, and experimental nuclear physics. I will discuss how we study the physics of microscopic nuclei to understand some of the largest, most violent explosions in the Galaxy, which create elements that make up the Solar System, the Earth and each of us.



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**29 October 2016, 10-11:00 a.m.**

**Room 130 Nicholson Hall, LSU**