

THE UCR CENTER FOR EXPERIMENTAL COSMOLOGY & INSTRUMENTATION PRESENTS:

FRONTIERS OF COSMOLOGY LECTURE

How to see a star explode from underground

When a massive star reaches the end of its life, it collapses and then explodes as a supernova, which can shine as brightly as an entire galaxy for a brief time. Right before the explosion, the collapsed star emits a brilliant (but almost invisible) flash of neutrinos. Neutrinos are ghostly particles that can fly through matter as if it were transparent. Dr. Scholberg will describe how we can catch some of these neutrinos in vast underground detectors. The dying star will also send out a burst of gravitational waves—ripples in space-time. These astrophysical messengers will give us an early warning of the impending supernova. They will also give us an unprecedented inside view of the collapse and explosion in real time, and potentially even allow us to witness the birth of a black hole.

Featuring introductory remarks by UCR Chancellor Jack Hu, CNAS Dean Peter Atkinson, and 2017 Nobel Laureate Prof. Barry Barish



Special Speaker:
Kate Scholberg

*Arts and Sciences Distinguished Professor of Physics, Duke University
Member of the National Academy of Sciences*

This event is free and open to the public. The local community, and middle and high school students, are strongly encouraged to attend.

UC RIVERSIDE | Physics & Astronomy



Friday, October 17th
UCR University Theatre
5:00 PM: Reception
6:00 PM: Lecture

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