



# Allman Family Lecture 2017

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## Light of the Stars: Alien Worlds and our Fate on Earth

Adam Frank, University of Rochester



In the face of climate change, humanity is searching for ways to make our global civilization sustainable. But how do we know such a thing is even possible? In other words, how do we know that high-tech, energy-intensive planetary scale civilizations are even something the Universe does? Perhaps no high-tech civilization on anywhere in the Universe lasts more than a few centuries? In this talk, Adam Frank asks the question of sustainability from the Astrobiological Perspective. He begins with a discussion of what we have learned about planets, climate, and life from explorations of the Earth, other solar system worlds, and exoplanets in the galaxy. From there, he explores issues such as: why it is unlikely that we are the first civilization in cosmic history and why climate change will likely occur on any planet that evolves a technological civilization. Finally, he discusses how this Astrobiological Perspective can change the way we approach climate change and sustainability, lifting discussion above the usual political polarities.

Astrophysicist Adam Frank is a leading expert on the final stages of evolution for stars like the sun, and his computational research group at the University of Rochester has developed advanced supercomputer tools for studying how stars form and how they die. A self-described “evangelist of science,” he is also committed to showing others the beauty and power of science, and exploring the proper context of science in culture.

*Tuesday, October 17<sup>th</sup> 2017*

*5:00 p.m. Reception, 5:30 p.m. Lecture*

*McCord Auditorium, Dallas Hall*