Colorado Scientific Society

Lecture Announcement

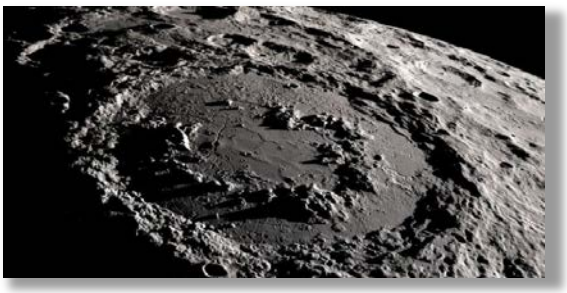
Thursday, February 20 , 2025, Calvary Church Golden

Impact events: before, during, and after

Dr. Catherine (Cat) Ross, University of Colorado Boulder

Lecture Highlights:

The ~66-m.y. Chicxulub impact event vaporized target rocks of the Yucatán Peninsula and scattered debris around the world. These materials are useful in reconstructing the event itself, as well as a number of resulting geologic processes including earthquakes, tsunamis, and wildfires. In addition to better understanding events that lead to the extinction of the dinosaurs and many other lifeforms, researching crater processes can also provide insights into how life begins. As records of early Earth's history, impact craters provide potential "cradles of life" that influenced the habitability of Earth's earliest biotic environments. Because they are a ubiquitous planetary process, novel research being done on this planet will provide clues for similar cratering processes on other planets. This research is more important as sample return missions from the Moon and Mars are planned.



Speaker Background:

Dr. Cat Ross is an NSF Postdoctoral Fellow at the Department of Geological Sciences, University of Colorado, Boulder. Her interests lie in investigating punctuated events throughout Earth history using field observations, geo-/thermos-chronology, microstructural analysis, and geochemistry.

Education

Postdoctoral Fellow; University of Wisconsin Madison
PhD: University of Texas at Austin, 2022
MS: McGill University, 2017
BS: McGill University, 2016

Keywords
impact cratering, planetary processes, mass extinctions, geochronology