

The Reid Lecture Series presents:

# Mathemagic of Sea Ice, Semiconductors, & Harry Potter



**Thursday, April 17, 2025 | 6-7 p.m. | USU Ballroom**

Graphene, osteoporosis, and invisibility cloaks may seem unrelated. However, through the unifying lens of mathematics, problems from disparate fields can be viewed in the same light and solved with the same math. For example, sea ice plays a critical role in Earth's climate system yet shares striking similarities to many other composite materials. We'll illustrate how our sea ice studies advance medical imaging and twistrionics, as well as climate science and polar ecology. After all, the math doesn't care if it's sea ice or bone. We'll conclude with a brief video from our Arctic and Antarctic expeditions featuring math students, and a few penguins! Learn more about the series at [Reid Lecture 2025](#).

## Presented by Dr. Ken Golden

Ken Golden is a Distinguished Professor of Mathematics and Adjunct Professor of Biomedical Engineering at the University of Utah. His main research interests are in mathematics of sea ice and climate, polar ecology, composite materials, statistical physics, and remote sensing. He's been on nineteen polar expeditions to obtain data that inform sea ice models, and given over 500 invited lectures on six continents, including four presentations to the U.S. Congress. Golden has won awards for teaching, mentoring, and science communication. His research has been covered by media around the world, including profiles in *Science*, *Scientific American*, *Physics Today*, and by the BBC. He is an Inaugural Fellow of the American Mathematical Society, a Fellow of the Society for Industrial and Applied Mathematics, cited for "extraordinary interdisciplinary work on the mathematics of sea ice," a Fellow of the Electromagnetics Academy, and a Fellow of the Explorers Club, whose members have included Neil Armstrong and Jane Goodall.



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Sponsored by: Marion Reid & K. Brooks Reid  
Coordinated by the Department of Mathematics