

**Math and Stat
Prospects in Mathematics
Thursday, November 18
3:00pm ENGR 101**



Refreshments will be served immediately following the talk

Speaker:
Graeme Milton
Distinguished Professor
Department of Mathematics
University of Utah

“Cloaking: Where Science Fiction Meets Science”

Abstract: Cloaking involves making an object partly, or completely, invisible to incoming waves. These waves may be sound waves, sea waves or seismic waves, but are usually electromagnetic waves, such as visible light, microwaves, infrared light, or radio waves. Camouflage and stealth technology achieve partial invisibility, but can one achieve true invisibility from such waves? This lecture will survey some of the wide variety of ideas on cloaking: these include cloaking by plasmonic covers, transformation based cloaking, non Euclidean cloaking, cloaking due to anomalous resonance, cloaking by complementary media, active interior cloaking and active exterior cloaking. Beautiful ideas are involved. Before the actual talk, there will be a 15 min presentation of movie clips (compiled by Mary Alexander) that deal with invisibility. “Star Trek” and “Harry Potter” are among the many clips.

The presentation is targeted to a broad audience, including undergraduates.

