Undergraduate Colloquium

Shari Moskow
Drexel University
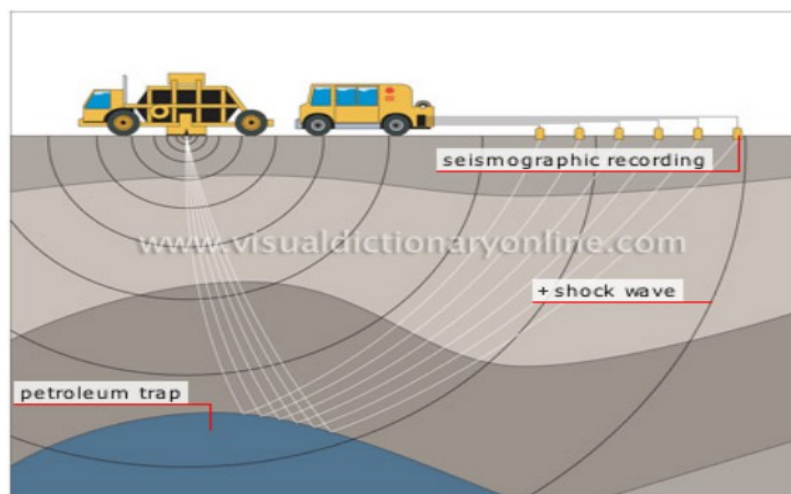

Inverse Problems: Determining the Equation

from the Solution

November 7, 2014
12pm PGH 646

Abstract

Mathematicians and scientists are often looking for the solution to an equation. However, sometimes rather than solving the equation, scientists are working backwards from data to define the equation itself. This kind of inverse thinking shows up in areas like medical imaging, remote sensing, nondestructive testing, and many other areas of science. Specialists may be using this logic to find a tumor in a breast or to locate oil in a geological reservoir. However, the smallest miscalculations in the acquired data can lead to large errors in defining the equation's parameters. Dr. Moskow will discuss the challenges facing scientists and mathematicians in solving these "inverse problems".

As usual, pizza will be served.
http://www.math.uh.edu/colloquium/undergraduate/