

**BI-CO MATHEMATICS
COLLOQUIUM**

**Shari Moskow
Drexel University**

**"Inverse Problems: Determining the Equation
from the Solution"**

Monday, November 28, 2016

Talk at 4:00 - H109

Tea at 3:30 - KINSC Math Lounge, H208

Abstract:

Mathematicians and scientist 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 reserver. 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 scientist and mathematicians in solving these "inverse problems."

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