CCSU
DEPARTMENT OF MATHEMATICAL SCIENCES
NSF–STEM SCHOLARSHIP PROGRAM AT CCSU

COLLOQUIUM

Friday, May 7
2:00 – 3:00 PM
Maria Sanford Hall, Room 101

THE ROLE OF METRICS
IN DISEASE DETECTION

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Abstract

In mathematics, there are many different ways to measure the distance between two points other than with the standard Euclidean formula (which yields the length of the straight line between them). This is true in real life as well: for example, the distance from Times Square to Radio City Music Hall is described in blocks. These different definitions of distance are called *metrics*, and they emerge in an application of biosurveillance called spatial scan statistics, which is a method of locating pockets of disease in an epidemic. In this talk, we will formally define metrics and discuss several different examples of them, along with their role in spatial scan statistics. In particular, we will discuss the idea of what is called the quotient metric, an important concept in geometry and topology.

This talk is aimed at undergraduates, with only familiarity with the distance formula being assumed.

For further information:
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