

CCSU
DEPARTMENT OF MATHEMATICAL SCIENCES

COLLOQUIUM

Friday, January 27
2:00 – 3:00 PM
Maria Sanford, Room 101

A SURVEY OF SPHERICAL GEOMETRY AND SOME OF ITS APPLICATIONS

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Abstract

Spherical geometry is the study of geometric objects on the surface of a ball in 3-dimensional space. This used to be a significant part of the mathematics curriculum in high schools and colleges. In fact, the study of problems in spherical geometry was central to the historical development of trigonometry. However, few people study it today except as part of a topics course in college geometry. Typical kinds of issues that arise are similar to those in plane geometry: properties of triangles, congruence, areas, and relations between sides and angles. In this talk I will survey some of the main theorems of spherical geometry and its applications in navigation, astronomy and crystallography.

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