

CCSU
DEPARTMENT OF MATHEMATICAL SCIENCES

COLLOQUIUM

Friday, April 17
3:00 – 4:00 PM
Maria Sanford, Room 101

COVERAGE PROBLEMS IN A POINCARÉ DISK

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Abstract: The Poincaré disk is a model for hyperbolic plane geometry. In this geometry we investigate under what conditions three discs cover the triangle made by their centers. Then we describe a sufficient condition for a set of triangles to cover a simple polygonal region. This condition is expressed in terms of the combinatorial properties of the graph made by the vertices and edges of the triangles in the set. Since the combinatorial condition can be proven in neutral geometry, it applies to both hyperbolic and Euclidean geometry.

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