

CCSU
DEPARTMENT OF MATHEMATICAL SCIENCES

COLLOQUIUM

Friday, September 12
2:00 – 3:00 PM
Maria Sanford, Room 101

LET'S REVIEW UNDERGRADUATE LINEAR ALGEBRA BY USING GRAPH THEORY

JASON MOLITIerno

SACRED HEART UNIVERSITY

Abstract: In an undergraduate linear algebra course, students study the fundamental concepts of basic linear algebra such as determinants, matrix inverses, the cofactor expansion, and eigenvalues. In this talk, we use these notions from undergraduate linear algebra to explore the combinatorial aspects of graph theory. Our goal is to prove the classic Matrix-Tree Theorem. We then apply this theorem to calculate the inverses of certain matrices strictly using combinatorics and counting methods.

For further information:
gotchevi@ccsu.edu 860-832-2839
<http://www.math.ccsu.edu/gotchev/colloquium/>