

# BI-CO MATHEMATICS COLLOQUIUM

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## **“Rewriting Systems and Gilman's Conjecture”**

**Monday, April 22, 2019**

**Talk at 4:00 – H109**

**Tea at 3:30 – Foyer outside of H109**

### **Abstract:**

A rewriting system is a way of describing a group that is particularly well suited to applying algorithms to group elements. A series of results over the last 40 years explore how the algebraic properties of classes of groups correspond to the combinatorial properties of the rewriting systems that describe them. In this talk, I'll discuss joint work with Adam Piggott proving a conjecture made by Robert Gilman in 1984, and what work remains to complete the classification of groups described by length-reducing rewriting systems. (No previous knowledge of rewriting systems will be necessary.)

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