THE DEPARTMENT OF MATHEMATICS PRESENTS

A COLLOQUIUM

MONDAY, NOVEMBER 14, 4:00–4:50PM
BOND HALL 428

SPEAKER: Emma Bullock (Utah State University)
TITLE: An Explanatory Sequential Mixed Methods Study of the School Leaders’ Role in Students’ Mathematics Achievement through the Lens of Complexity Theory

ABSTRACT: Student achievement in the K-12 mathematics classroom is of concern to parents, teachers, and community leaders as complex modern technological innovations call for higher proficiency in problem solving and mathematically creative minds are necessary to fill the vital, higher-paying jobs of today and the future. School leaders are expected to make decisions that will measurably, and in some cases, dramatically, improve student achievement in mathematics. However, school leaders do not make decisions in isolation; rather, they make decisions as part of a complex adaptive system (CAS). There is limited research concerning content-specific school leadership and its effects on student achievement, particularly through the lens of complexity theory. This study focuses on the relationships between students mathematics achievement and the characteristics of school leaders, looks at the influences affecting the decisions and actions being made by school leaders, and then seeks to understand how a school leaders decisions and actions are associated with students mathematics achievement. Preliminary quantitative results indicate significant positive and negative relationships, including looping effects, between students mathematics achievement and complex, diverse characteristics of school leaders.

Refreshments provided by Prof. Berget