The University of Mississippi
Department of Mathematics

Analysis Seminar

Dr. Sandra Spiroff
The University of Mississippi

4:00 P.M., Thursday, August 25
Hume 321

Title: Tropical Mathematics

Abstract: The adjective *tropical* arises simply from the French view of Brazil in the 1980's and 1990's; the mathematical theory would more aptly be described as *min-plus algebra*. Our particular interest is the tropical semi ring, whose objects are real numbers, along with positive infinity, and whose two binary operations are defined to be the minimum and the sum. We aim to generalize this definition to higher dimensions. Our objects are closed convex sets, in real n-space, with a fixed recession cone, and operations defined to be the closed convex hull and the Minkowski sum. In the case of dimension one, this reduces to the original definition. (This talk is accessible to graduate students.)