

VCU Discrete Mathematics Seminar

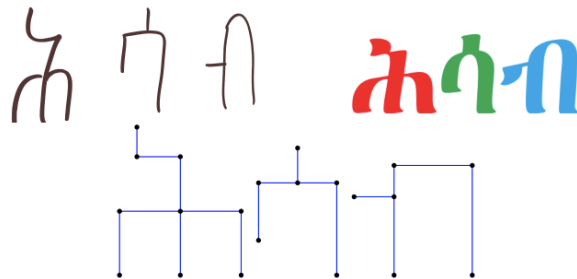
Graph Kernels for Comparing Ge'ez Writing Characters

**Prof Ghidewon Abay-Asmerom
(VCU!)**

Wednesday, April 9
1:00-1:50 EDT

In person! in 4145 Harris Hall. And on Zoom:

<https://vcu.zoom.us/j/92975799914>
password=graphs2357



The convergence of machine learning and optical character recognition (OCR) has sparked interest in the Ge'ez writing system, which presents unique challenges for achieving accurate and efficient text recognition. This ancient script, primarily utilized in the Horn of Africa, includes a wealth of handwritten secular and religious documents that necessitate digitization and character recognition. In this presentation, we will explore how modeling Ge'ez characters as graphs allows for the application of graph comparison methods to identify similarities and differences among the characters within the writing system. Specifically, we will use random walk kernels and the direct product of graphs to examine the relationships among various families of Ge'ez characters.

For the DM seminar schedule, see:

<https://go.vcu.edu/discrete>