Central Michigan University **Department of Mathematics** GRADUATE STUDENT SEMINAR

BEN SALISBURY Central Michigan University

CREATING GRAPHICS USING TIkZ AND SAGEMATH

Tuesday, January 24, 4:00 pm - 5:00 pm Pearce Hall, Room 227

During last week's talk, you were introduced to the basics of the LATEX typesetting engine. This is a fantastic tool for recording and disseminating mathematical ideas; i.e., notes for a course, a manuscript meant for publication, homework solutions to impress (and please!) your instructor. One hurdle most newcomers have to overcome when beginning to use LATEX is how to incorporate graphics into their document. In this talk, two solutions will be presented. One utilizes a package called TikZ, which is code that used directly inside the LATEX document itself. The second involves the open-source mathematical software SAGEMATH. Both solutions are free to the user (unlike Adobe or Microsoft products, for example) and offer very pleasing results.

For those who would like to play along during the presentation, it would be best to create an account at SAGEMATHCLOUD (cloud.sagemath.com). This is a freely available cloud-based service which allows users to use both IAT_EX and SAGEMATH in a convenient environment.