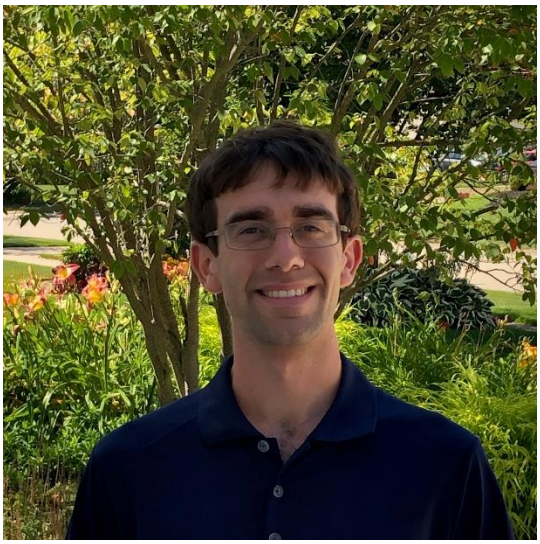
Applied Mathematics Seminar



Dr. Nathaniel Bowman

School of Computing- GVSU

Friday, November 18 1-1:50pm

MAK A2-167 or via zoom (request password from ortizron at gvsu dot edu)

Computation of Minimum-volume Enclosing Ellipsoids

Abstract: Minimum-volume Enclosing Ellipsoids (MVEEs) are a tool for summarizing large data sets by a convex body. They find applications in areas as diverse as computational geometry, data analysis, and optimal design. As with other large-scale problems, first-order methods are currently considered state-of-the-art for computation of MVEEs. However, due to the very sparse nature of solutions, second-order (Newton-like) methods making judicious use of constraints can be competitive up to surprisingly large problem sizes. I will discuss a few algorithms for the MVEE problem and demonstrate how we can use information about the data set being summarized to determine which approach is most appropriate for solving a given problem.

Get your **Free** slice of pizza!

More info: http://bit.ly/applied-math-seminar

*Hosted by the Mathematics Department, GVSU