

## **Algorithms of Numerical Algebraic Geometry**

Jonathan Hauenstein, North Carolina State University

Since nonlinear systems of equations arise in a variety of fields and applications, there are a variety of approaches for computing their solution set.

This talk will describe the foundational algorithms in numerical algebraic geometry for solving systems of nonlinear polynomial equations as well as provide insight into the current state of the art. These algorithms will be demonstrated using Bertini on a variety of examples.