

### **Numerical Algebraic Geometry: An Introduction and Applications**

Numerical algebraic geometry is a growing field in mathematics that focuses on describing zeros of polynomial systems. Already, there have been applications in kinematics, statistics, PDE's, and pure math.

The first half of the talk, introduces definitions and ideas used to describe solutions of polynomials. The second half of the talk focuses on research on maximum likelihood duality and its applications to algebraic statistics.

This is joint work with Jan Draisma, Jon Hauenstein, and Bernd Sturmfels.