1154-VT-1501 **Grant Lee Innerst***, 441 E King St, Shippensburg, PA 17257, and **David J Kahle**. *Solving Statistical Estimation Problems with Algebraic Geometric Tools.*

This work arises from the realization that statistical estimation problems often display a strong algebraic structure. This structure can be leveraged to use powerful software from the algebraic community to find solutions that were previously unattainable. Although we touch on multiple different estimation problems and algebraic techniques, our main focus is on using tools from numerical algebraic geometry to solve estimation problems that fall into the class of minimum chi-square estimators. (Received September 15, 2019)