

1161-62-108 **Chad M Schafer*** (cschafer@cmu.edu). *Astrostatistics in the Era of LSST*. Preliminary report. The Legacy Survey of Space and Time (LSST), to be conducted at the under-construction Vera C. Rubin Observatory, will yield 15 Terabytes of data each evening over a ten-year period, revolutionizing our understanding of the Universe. The complexity of the statistical challenges demands increased involvement from the data science community. In this talk I will describe some of the opportunities, focusing on the recurring challenges when working with high-dimensional and noisy astronomical data. In their raw form, these data are difficult to model, and assumptions that may have been reasonable at small sample sizes could be revealed to be inadequate by LSST-scale data sets. Such inference challenges provide statisticians with opportunities to both contribute to groundbreaking science, and to advance statistical methodology. (Received August 13, 2020)