

1154-VN-2131 **Lauren J Sauer*** (lauren.jo.sauer@gmail.com). *Stress-strength Inference for the Multicomponent System Based on Progressively type-II censored samples from Pareto Distributions*. Preliminary report.

A system of k components, where the strengths of all k components are independent and have identical distribution and each component is subject to a common random stress, is investigated. This system is alive only if at least s ($\leq k$) component strengths exceed the stress. This is also called a multicomponent stress-strength problem. In this talk, the maximum likelihood estimate of the multicomponent system reliability and the related confident intervals of the system reliability are presented based on progressively type-II censored samples from Pareto distributions. An intensive Monte Carlo simulation study is conducted to compare the impact from difference progressive censoring schemes. (Received September 17, 2019)