

1086-VG-230

Adam F Childers* (childers@roanoke.edu), MSCP Department, 221 College Lane, Salem, VA 24153. *V-Optimal Experiment Designs for Non-Linear Models*. Preliminary report.

In this presentation we will investigate techniques for finding V-optimal or near V-optimal experiment designs for non-linear models with bounded errors. Using an inverse method to find the membership set, we will discuss the relationship between V-optimal designs and optimal designs associated with models with normally distributed errors. Further, we will use the sensitivity of the membership set with respect to the parameter of interest and the magnitude of the bounded error to understand how to find designs that are both V-optimal and robust. (Received August 09, 2012)