1172-65-293 **Alen Alexanderian*** (aalexan3@ncsu.edu). *Optimal design of inverse problems governed by PDEs.*

We will discuss methods for optimal experimental design for Bayesian inverse problems governed by partial differential equations (PDEs) with infinite-dimensional parameters. The focus will be on problems where one seeks to optimize the placement of measurement points (e.g., sensors), at which measurement data are collected, in such a way that the uncertainty in the estimated parameters is minimized. We will also consider the cases where the governing PDE includes uncertain parameters, in addition to those being estimated. We will discuss design of such inverse problems as well as sensitivity analysis with respect to the additional model uncertainties. (Received August 30, 2021)