



STATISTICS SEMINAR



A Hierarchical Model for the Reliability of an Anti-aircraft Missile System

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DATE: April 27, 2006

TIME: 4:00 pm

PLACE: Dickens 106

REFRESHMENTS: 3:30 pm – Dickens 108

We describe a hierarchical model for assessing the reliability of multi-component systems. Novel features of this model are the natural manner in which failure time data collected at either the component or subcomponent level is aggregated into the posterior distribution, an pooling of failure information between similar components. Prior information is allowed to enter the model in the form of actual point estimates of reliability at nodes, or in the form of prior groupings. Censored data at all levels of the system are incorporated in a natural way through the likelihood specification. The methodology is illustrated with an example from an anti-aircraft missile system.

** Upcoming seminars may also be found on the web at <http://www.ksu.edu/stats/current.seminars/nav.currentseminars.html>.