

**Hall, J.W. Sensitivity indices for imprecise probability distributions.
Accepted for publication in Reliability Engineering and System Safety.**

Abstract

Conventional variance-based sensitivity indices are extended to deal with the case when information is available as closed convex sets of probability measures, a situation that exists when probability distributions are specified with interval-valued parameters. The generalization to closed convex sets of probability measures yields lower and upper sensitivity indices. An example demonstrates a numerical method for estimating these sensitivity indices.