

## Characterizing Multivariate Thresholds in Industrial Engineering

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**Abstract :** This paper highlights some of the normative issues that might result by setting independent thresholds in risk analyses and particularly with safety regions. A second objective is to explain how such regions can be specified appropriately in a meaningful way. We start with a review of the importance of setting deterministic trade-offs among target requirements. We then show how to determine safety regions for risk analysis appropriately using utility functions.

**Keywords :** decision analysis, thresholds, risk, reliability

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