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A Subset Simulation Based Approach with Modified Conditional Sampling and Estimator for Loss Exceedance Curve Computation

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HIGHLIGHTS

- Literature establishes motives behind interest in stochastic simulation-based approach for loss exceedance curve computation.
- Proposed approach involves modification of Subset Simulation and development of new estimators.
- Comprehensive characterization of the PDF of the loss including the tail parts.
- Illustrative example on seismic loss analysis considering stochastic ground motion model, nonlinear stochastic dynamic model, probabilistic fragility and loss functions and their uncertainties.

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