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Uncertainty Importance Measures of Dependent Transition Rates for Transient and Steady State Probabilities

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Highlights

- The influence of uncertainties associated with the transition rates in Markov models has been investigated.
- The dependent transition rates are represented by a group of independent random variables.
- Uncertainty importance measures (UIMs) are derived based on the total sensitivity indices.
- The extended Fourier amplitude sensitivity test is employed for the quantification of the UIMs.
- Transient and steady state probabilities have been both taken into account as the outputs of the models.