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Mathematical Modelling and Computational Methods in Reliability Engineering

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Message from the Guest Editors

Complex engineering systems can be impacted by various types of uncertainties. These uncertainties can affect the system's performance, resulting in inadequate fulfilment of its intended function. Thus, reliability has become an important issue. To design a reliable engineering system, it is important to understand its failure mechanism, estimate the reliability (or failure probability), analyze the effects of different uncertain factors on system failure.

This Special Issue titled "Mathematical Modelling and Computational Methods in Reliability Engineering" aims to present recent research about theoretical and numerical studies in reliability engineering. Potential topics include but are not limited to: (1) modelling of failure mechanism, (2) computational methods for failure probability estimation, (3) reliability sensitivity analysis, (4) reliability-based design and optimization, (5) Bayesian statistics in reliability engineering, (6) applications with reliability engineering problems. Original research articles and comprehensive reviews are highly welcome.

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Message from the Editor-in-Chief

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