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Sommario/riassunto

Discrete event systems (DES) have become pervasive in our daily lives. Examples include (but are not restricted to) manufacturing and supply chains, transportation, healthcare, call centers, and financial engineering. However, due to their complexities that often involve millions or even billions of events with many variables and constraints, modeling these stochastic simulations has long been a ""hard nut to crack"". The advance in available computer technology, especially of cluster and cloud computing, has paved the way for the realization of a number of stochastic simulation optimization f