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Sommario/riassunto	"Reliability is a critical attribute for the modern technological components and systems. Uncertainty exists on the future performance and failure occurrence of a component or system, and proper mathematical methods are developed and applied to quantify such uncertainty, which is fundamental for reliability engineering. The ultimate goal of reliability engineering is to quantitatively assess the probability of failure of the target component or system [1]. In general, reliability assessment can be carried out by both parametric or nonparametric techniques. Depending on the type of the technological components and systems, the reliability assessment can be distinguished as hardware reliability, software reliability, and human reliability assessment. Definitions of reliability According to the standard ISO 8402, reliability is the ability of an item to perform a required function, under given environmental and operational conditions and for a stated period of time without failure. The term "item" refers to either a component or a system."--