

# A Reliability Model for Safety System-Protected Object Complex with Time Redundancy

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## **Abstract**

In this paper an advanced safety system-protected object complex reliability model has been proposed, assuming time redundancy caused by protected object inertia. We also take into consideration scheduled periodic inspections of the safety system. The model can be used to obtain two-sided estimates of such reliability indices as mean time to failure and probability of failure prior to time  $t$ .

**Keywords:** Reliability, safety system, protected object, time redundancy.

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