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THE BASIC CONCEPTS OF ANTICIPATING SINGLE EVENT EFFECT RATES

**Abstract**

The basic concepts applicable to the random Chord of convex bodies are discussed, and a set of theorems relevant to the problem is presented. Formulae are derived for the arbitrary chord length distribution in rectangular volumes, These relations, when coupled with the cosmic-ray LET spectrum through an integral, can anticipate the single event effect rate of microelectronic devices working in satellites.this indicates the steps to calculate the error rates and how to set the relevant parameters in space radiation softeware(includes creme96 and space radiation 6.01)to be the endquestions about some weibull parameter and the single event effect rate are discussed.