

7 Conclusion.

The proposals presented in this paper open up the prospect for the further study of the extremely important problem of estimating the probabilities of rare events and catastrophes in the electric power industry. Time series characterized by the slow decrease in the number of rare events should be represented by the power distribution. Statistics described by the power distribution states that:

- events falling on the "tail" of the distribution are not so rare as to be ignored;
- catastrophic events are not exceptional but have rather a high probability, which is to be taken into account;
- for the power distribution the probability of catastrophic consequences may exceed the probabilities calculated on the basis of a normal, exponential or gamma distribution by an order of magnitude or more.

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