

Cluster analysis of the operating mode of the electric power system taking into account the topology of the electric network.

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The article presents the results of using the method of nonparametric classification in order to determine groups of power substations with similar levels of electric current frequency for the diagnosis of instability of the electric power system on the example of transient modes in the Unified Energy System of Russia.

Key words: nonparametric method, transient mode, transient process, synchronous zone, separation of the power system, violations of normal operation.