

## **Theme 5. Primary processing of statistical data. Statistical estimations of parameters of a distribution**

1. Basic problems of mathematical statistics.
2. A sampling method.
3. Definitions of a population and its sample.
4. An empirical distribution law.
5. Ways of a presentation of sampling totalities and a representation of results of observations.
6. Discrete and interval variational series.
7. A polygon and a histogram.
8. Basic sampling characteristics and their asymptotic behavior.
9. Statistical estimations of distribution parameters of a population and their properties: an unbiasedness, possibility and an efficiency.
10. An asymptotic efficiency of maximally plausible estimations.
11. The method of moments.
12. Point and interval estimations.
13. A confidence interval for a mathematical expectation of a normal population.