Likelihood Methods in Statistics
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Statistics

Abstract
This book provides an introduction to the modern theory of likelihood-based statistical inference. This theory is characterized by several important features. One is the recognition that it is desirable to condition on relevant ancillary statistics. Another is that probability approximations are based on saddlepoint and closely related approximations that generally have very high accuracy. A third aspect is that, for models with nuisance parameters, inference is often based on marginal or conditional likelihoods, or approximations to these likelihoods. These methods have been shown often to yield substantial improvements over classical methods. The book also provide an up-to-date account of recent results in the field, which has been undergoing rapid development.

Fingerprint

Cite this

In statistics, maximum likelihood estimation (MLE) is a method of estimating the parameters of a statistical model, given observations. The method obtains the parameter estimates by finding the parameter values that maximize the likelihood function. The estimates are called maximum likelihood estimates, which is also abbreviated as MLE. The method of maximum likelihood is used with a wide range of statistical analyses. As an example, suppose that we are interested in the heights of adult female