ZZSC5960 - Assessment 4 Part II

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Question: When defining a Bayesian credible interval of level 95%, can we say that the true parameter lies in the interval with probability 95%?

Answer:

In the strictly Bayesian paradigm, the parameter is considered a random variable. Hence, the "true" parameter does not exist in a fixed deterministic sense. Rather it exists in the form of prior beliefs and the observed likelihood function which together create the posterior distribution.

A credible interval (region) of level 95% describes the region(s) under the posterior distribution with a cumulative probability of 95% - with the interpretation that the parameter variable may lie in such a region.