

Characterising Dirichlet priors

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The characterisation of prior distributions is a problem that has been discussed since Bayes published his paper. Bayes himself tried to justify his prior following a principle that became known as principle of insufficient reason. In the last century, several applied researchers used conjugated priors mainly for mathematical convenience while others still tried to justify their choices based on reasonable principles of inference and/or key features, depending on the problem at hand. This work justifies the use of Dirichlet priors based on a principle called partition invariance, alongside with other requirements that are already well known from the literature.

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