

Mathematics of improper priors and posteriors

Taraldsen et al (2022) have recently proved a generalization of Bayes theorem that includes both improper priors and improper posteriors. This theory links the Rényi (1955) conditional probability spaces with the theory of disintegration presented by Bourbaki (1959). In the following the Basu theorem, the factorization theorem, and optimal frequentist inference based on Bayesian or fiducial arguments are reconsidered in this more general context.

References

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