

Bayesian Optimisation for Bayesian Evidence

Monday 7 April 2025 15:12 (8 minutes)

Cosmological model selection, in the framework of Bayesian inference requires the calculation of the Bayesian evidence. This can often be quite challenging, especially if the underlying likelihood function is expensive to evaluate. I will discuss how a technique called Bayesian Optimisation, based on Gaussian Process regression, can be used to calculate this evidence in far fewer likelihood evaluations, offering a much more efficient approach compared to traditional methods.

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