



## Approximate Bayesian model comparison of LAQ models

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Our objective is large-sample Bayesian model comparison when the underlying statistical model is locally asymptotically quadratic (LAQ). We introduce classical BIC-type statistics which enable us to make a unified descriptive model comparison for a broad range of quasi-likelihood estimation of dependent-data models, especially including stochastic-process models observed at high frequency. The proposed statistics is applicable even when the statistical model is misspecified, when the asymptotic quasi-information matrix is random, and when the estimator is of multi-scaling type. The proposed statistics do not require any fine-tuning parameter, and hence entails low computational cost. Consequently, applicable scope of the celebrated Schwarz's paradigm has been considerably extended.

**Keywords:** Bayesian model comparison; LAQ model; stochastic process.