Markov chain Monte Carlo with the Integrated Nested Laplace Approximation

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Abstract

Sammendrag

Preface

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Integrated Nested Laplace Approximation

The Integrated Nested Laplace Approximation henceforth referred to as INLA, is fully described in Rue et al. 2009. This technique provides a way to approximate posterior marginals of the model parameters, given a model that is Guassian latent.

Given n observation $\boldsymbol{y} = (y_1, y_2, \ldots, y_n)$ assumed to have a distribution in the exponential family, the covariates and a linear predictor can be linked to the mean $\boldsymbol{\mu}$ of the observation $\boldsymbol{y}$ through a link function.

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Bibliography

[1]H. Rue, S. Martino, and N. Chopin, "Approximate bayesian inference for latent gaussian models by using integrated nested laplace approximations", Journal of the Royal Statistical Society. Series B (Statistical Methodology) **71**, 319–392 (2009).