Bayesian Notes for building the geostatistical MANOVA-KNN pipeline

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1 Introduction

Note

This document is "under construction". It contains older notes of mine on Baysian data analysis. Some were used in technical reports of mine (see https://www.researchgate.net/publication/317549069_poisson_model) and also new sections aiming at creating the background necessary for the implementation of the MANOVA-KNN pipeline in geostatistics using the idea of **posterior predictive checks** (Introduction and Deduction in Bayesian Data Analysis, Andrew Gelman, 2011) [**?**]. For this purpose, I will have to work through books building up my skills, fortunately I was given a hint (and a copy) by a friend on "Bayesian Data Analysis for Social Sciences" by Simon Jackman (Wiley, 2009) and "Bayesian Data Analysis" by Andrew Gelman, John B. Carlin, Hal S. Stern, David B. Dunson, Aki Vehtari and Donald B. Rubin (CRC, 2014). Please download the current version from my GitHub profile under the multivariate_analyses project repository: https://github.com/RoxanaTesileanu/multivariate_analyses/blob/master/literature_analysis/geospatial_scala/bayesian_notes_geosp.pdf.

The statistical plots in this document were generated in Scala using the JavaPlot package developed by Panayotis Katsaloulis [**?**]. You can find the scala source files used for generating them under the link: https://github.com/RoxanaTesileanu/multivariate_analyses/tree/master/DeepLearning/src/main/scala/com/mai/scalaPlot.

The present document was edited using Latex [**?**] (https://www.latex-project.org/). The source .tex file of the present document is also available in the multivariate_analyses repository on my GitHub profile. Special thanks to Gustavo Mezzetti for the Latex halloweenmath package: http://mirrors.concertpass.com/tex-archive/macros/latex/contrib/halloweenmath/halloweenmath-man.pdf!