Spatial Generalized Linear Mixed Models with Application to Prevalence Mapping 空间广义线性混合模型及其在预测流行病中的应用

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2023年9月1日

内容提要

引言

研究意义 文献综述 主要内容

模型 (SGLMM)

模型结构 计算方法 数据分析

结论与展望

Examples

- 1. radionuclide concentrations on Rongelap Island
- 2. childhood malaria in the gambia
- 3. Loa loa prevalence in Cameroon and surrounding areas

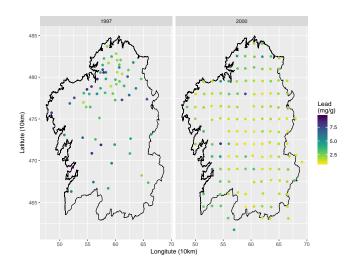
Introduction

Diggle et al. (2002)

- the effects of child level covariates (age and bed net use)
- village level covariates (the primary health care and greenness of surrounding vegetation)
- separate components for residual spatial
- non-spatial extrabinomial variation

 \mathbb{R}^n

$$\log\{p_{ij}/(1-p_{ij})\} = \alpha + \beta' z_{ij} + U_i + S(x_i)$$



参考文献I

Diggle, Peter, Moyeed, Rana, Rowlingson, Barry, & Thomson, Madeleine. 2002. Childhood malaria in the Gambia: a case-study in model-based geostatistics. *Journal of the Royal Statistical Society: Series C (Applied Statistics)*, **51**(4), 493–506.