

Original Articles

## Comparison of MINQUE and Simple Estimate of the Error Variance in the General Linear Models

Song Gui WANG(1), Mi Xia WU(2), Wei Qing MA(3)

(1)(2)Department of Applied Mathematics, Beijing Polytechnic University;(3)Department of Probability and Statistics, Peking University

收稿日期 修回日期 网络版发布日期 接受日期

**摘要** Comparison is made between the MINQUE and simple estimate of the error variance in the normal linear model under the mean square errors criterion, where the model matrix need not have full rank and the dispersion matrix can be singular. Our results show that any one of both estimates cannot be always superior to the other. Some sufficient criteria for any one of them to be better than the other are established. Some interesting relations between these two estimates are also given.

**关键词** [general linear model](#) [MINQUE](#) [mean square error](#)

分类号

## Comparison of MINQUE and Simple Estimate of the Error Variance in the General Linear Models

Song Gui WANG(1), Mi Xia WU(2), Wei Qing MA(3)

(1)(2)Department of Applied Mathematics, Beijing Polytechnic University;(3)Department of Probability and Statistics, Peking University

**Abstract** Comparison is made between the MINQUE and simple estimate of the error variance in the normal linear model under the mean square errors criterion, where the model matrix need not have full rank and the dispersion matrix can be singular. Our results show that any one of both estimates cannot be always superior to the other. Some sufficient criteria for any one of them to be better than the other are established. Some interesting relations between these two estimates are also given.

**Key words** [general linear model](#) [MINQUE](#) [mean square error](#)

DOI:

通讯作者 Song Gui WANG [wangsg88@yahoo.com.cn](mailto:wangsg88@yahoo.com.cn)

### 扩展功能

#### 本文信息

- ▶ [Supporting info](#)
- ▶ [PDF\(0KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [参考文献](#)

#### 服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [加入引用管理器](#)
- ▶ [复制索引](#)
- ▶ [Email Alert](#)
- ▶ [文章反馈](#)
- ▶ [浏览反馈信息](#)

#### 相关信息

- ▶ 本刊中 包含 “[general linear model](#)”的 [相关文章](#)
- ▶ 本文作者相关文章
  - [Song Gui WANG](#)
  - [Mi Xia WU](#)
  - [Wei Qing MA](#)