BAC|ACB|BCA

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Model





* 3-sequence 3-period 3種藥物交叉設計反應變數表



* ABC|BCA|CAB 交叉設計參數表



* ABC|BCA|CAB 交叉設計自變量定義表



* 概似函數





* 分數函數









分數函數取期望值可得















* 最大概似估計量

定義







* 側面概似函數(待修)



定義



當為真，



1. Wald’s Test



1. Score Test



* 二階微分

























































* 費雪矩陣I





Sum(tm)



tm[0]+tm[5]+tm[6]



tm[2]+tm[4]+tm[7]



tm[1]+tm[4]+tm[7]



tm[2]+tm[5]+tm[8]



Sum(tm[3:6])



Sum(tm[6:9])



tm[0]+tm[5]+tm[6]





 tm[5]

 tm[5]

 tm[6]



tm[2]+tm[4]+tm[7]



tm[4]+tm[7]

 tm[2]

 tm[4]

 tm[7]

 tm[1]+tm[4]+tm[7]



 tm[4]

 tm[7]

 tm[2]+tm[5]+tm[8]

 tm[5]

 tm[8]

 sum(tm[3:6])



 sum(tm[6:9])

* 變異數矩陣



Sum(Var)+2\*sum(Cov)



Var[0]+Var[5]+Var[6]+sum(Cov)-Cov[2]-Cov[3]-Cov[8]



Var[2]+Var[4]+Var[7]+sum(Cov)-Cov[0]-Cov[4]-Cov[7]



Var[1]+Var[4]+Var[7]+sum(Cov)-Cov[1]-Cov[4]-Cov[7]



Var[2]+Var[5]+Var[8]+sum(Cov)-Cov[0]-Cov[3]-Cov[6]



Sum(Var[3:6])+2\*sum(Cov[3:6])



Sum(Var[6:9])+2\*sum(Cov[6:9])



Var[0]+Var[5]+Var[6]



Cov[1]+Cov[5]+Cov[6]



Cov[0]+Cov[5]+Cov[6]



Var[5]+Cov[1]+Cov[7]



Var[5]+Cov[4]+ov[5]



Var[6]+Cov[6]+Cov[7]



Var[2]+Var[4]+Var[7]



Var[4]+Var[7]+Cov[2]



Var[2]+Cov[5]+Cov[8]



Var[0]+Var[5]+Var[6]+sum(Cov)-Cov[2]-Cov[3]-Cov[8]



Var[7]+Cov[6]+Cov[8]



Var[1]+Var[4]+Var[7]



Cov[2]+Cov[5]+Cov[8]



Var[4]+Cov[3]+Cov[5]



Var[7]+Cov[6]+Cov[8]



Var[2]+Var[5]+Var[8]



Var[5]+Cov[4]+Cov[5]



Var[8]+Cov[7]+Cov[8]



Sum(Var[3:6])+2\*sum(Cov[3:6])





Sum(Var[6:9])+2\*sum(Cov[6:9])

* 模擬 (次數：3000)

獨立資料



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 參數真值 | | 最大概似估計量 | |  |  |
|  | 1.0 |  |  |  |  |
|  | 0.5 |  |  |  |  |
|  | 0.2 |  |  |  |  |
|  | 0.2 |  |  |  |  |
|  | 0.2 |  |  |  |  |
|  | 0.2 |  |  |  |  |

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相關性資料生成步驟

1.  
2. 







相關性資料

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| 參數真值 | | 最大概似估計量 | |  |  |
|  | 1.0 |  |  |  |  |
|  | 0.5 |  |  |  |  |
|  | 0.2 |  |  |  |  |
|  | 0.2 |  |  |  |  |
|  | 0.2 |  |  |  |  |
|  | 0.2 |  |  |  |  |

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* 檢定

假設實作模型，其中為感興趣的參數，為干擾參數。



定義