

# 《贝叶斯统计》第二版第 3 次印刷勘误表 (2024.03)

## 第一章

$P_{13}$ , -5行(定义1.3.2)中:

$$\left\{ \begin{array}{l} \text{误: } R(\theta, \delta(\mathbf{x})) = E^{\mathbf{X}|\theta}[L(\theta, \delta(\mathbf{X}))] = \int_{\mathcal{X}} L(\theta, \delta(\mathbf{x}))dF(\mathbf{x}|\theta) \\ \text{正: } R(\theta, \delta) = E^{\mathbf{X}|\theta}[L(\theta, \delta(\mathbf{X}))] = \int_{\mathcal{X}} L(\theta, \delta(\mathbf{x}))dF(\mathbf{x}|\theta) \\ \text{注: 将其中 } R(\theta, \delta(\mathbf{x})) \text{ 改为 } R(\theta, \delta), \text{ 共1处} \end{array} \right.$$

## 第六章

$P_{235}$ , -6 行中:  $\left\{ \begin{array}{l} \text{误: } (6) \text{ 从 } G(a, b) \text{ 中产生 } \tau. \\ \text{正: } (6) \text{ 从 } \Gamma(a, b) \text{ 中产生 } \tau. \end{array} \right.$

# 《贝叶斯统计》第二版第 4 次印刷勘误表 (2025.03)

## 第二章

$P_{36}$ , 第3 行(定义2.3.2) 中:

$$\left\{ \begin{array}{l} \text{误: } m(\mathbf{x}|\hat{\pi}) = \sup_{\pi \in \Gamma} m(\mathbf{x}|\pi) = \sup_{\pi \in \Gamma} \prod_{i=1}^n m(x_i|\pi) \\ \text{正: } m(\mathbf{x}|\hat{\pi}) = \sup_{\pi \in \Gamma} m(\mathbf{x}|\pi) \end{array} \right.$$

$P_{36}$ , 第11行中:

$$\left\{ \begin{array}{l} \text{误: } m(\mathbf{x}|\hat{\lambda}) = \sup_{\lambda \in \Lambda} m(\mathbf{x}|\lambda) = \sup_{\lambda \in \Lambda} \prod_{i=1}^n m(x_i|\lambda) \\ \text{正: } m(\mathbf{x}|\hat{\lambda}) = \sup_{\lambda \in \Lambda} m(\mathbf{x}|\lambda) \end{array} \right.$$

$P_{36}$ , -3行中:

$$\left\{ \begin{array}{l} \text{误: } L(\mu_{\pi}, \sigma_{\pi}^2|\mathbf{x}) = m(\mathbf{x}|\boldsymbol{\lambda}) \\ \text{正: } L(\mu_{\pi}, \sigma_{\pi}^2|\mathbf{x}) = m(\mathbf{x}|\boldsymbol{\lambda}) = \prod_{i=1}^n m(x_i|\boldsymbol{\lambda}) \end{array} \right.$$

$P_{39}$ , 第5 行中:

$$\left\{ \begin{array}{l} \text{误: } \text{分别作为}\mu_m(\lambda) \text{和}\sigma_m^2(\lambda)\text{的估计. 将式(2.3.5)和(2.3.8)左边的}\mu_m(\lambda) \\ \text{正: } \text{分别作为}\mu_m(\boldsymbol{\lambda}) \text{和}\sigma_m^2(\boldsymbol{\lambda})\text{的估计. 将式(2.3.5)和(2.3.8)左边的}\mu_m(\boldsymbol{\lambda}) \\ \text{注: 将其中的}\lambda\text{改为黑体}\boldsymbol{\lambda}, \text{共3处} \end{array} \right.$$

$P_{39}$ , 第6 行中:

$$\left\{ \begin{array}{l} \text{误: } \text{和}\sigma_m^2(\lambda)\text{分别用这两个估计量代替, 得方程组} \\ \text{正: } \text{和}\sigma_m^2(\boldsymbol{\lambda})\text{分别用这两个估计量代替, 得方程组} \\ \text{注: 将其中的}\lambda\text{改为黑体}\boldsymbol{\lambda}, \text{共1处} \end{array} \right.$$

$P_{39}$ , 第7-8 行中:

$$\left\{ \begin{array}{l} \text{误: } \left\{ \begin{array}{l} \hat{\mu}_m = E^{\theta|\lambda}[\mu(\theta)] \\ \hat{\sigma}_m^2 = E^{\theta|\lambda}[\sigma^2(\theta)] + E^{\theta|\lambda}[\mu(\theta) - \mu_m(\lambda)]^2 \end{array} \right. \\ \text{正: } \left\{ \begin{array}{l} \hat{\mu}_m = E^{\theta|\boldsymbol{\lambda}}[\mu(\theta)] \\ \hat{\sigma}_m^2 = E^{\theta|\boldsymbol{\lambda}}[\sigma^2(\theta)] + E^{\theta|\boldsymbol{\lambda}}[\mu(\theta) - \mu_m(\boldsymbol{\lambda})]^2 \end{array} \right. \\ \text{注: 将其中的}\lambda\text{改为黑体}\boldsymbol{\lambda}, \text{共4处} \end{array} \right.$$

## 第三章

$P_{65}$ , 第3行中:

- $$\left\{ \begin{array}{l} \text{误: 以便确诊是否患有癌症.} \\ \text{正: 以便确诊是否患有病.} \end{array} \right.$$

## 部分习题参考答案

$P_{251}$ , 第3-4行(习题四28题)中:

- $$\left\{ \begin{array}{l} \text{误: 令 } Z = \bar{X} - \bar{Y}, \mu(z) = \frac{\sigma^2 \mu + \tau^2 z}{\sigma^2 + \tau^2}, \eta^2 = \frac{\sigma^2 \tau^2}{\sigma^2 + \tau^2}, \text{ 其中 } \sigma^2 = \frac{1}{m} + \frac{1}{n}, \\ \tau^2 = \tau_1^2 + \tau_2^2, \text{ 则当 } -\mu(z)/\eta \geq 0 \text{ 时接受 } H_0, \text{ 否则拒绝 } H_0. \\ \text{正: 令 } \mu(\bar{x}, \bar{y}) = \mu_2(\bar{y}) - \mu_1(\bar{x}), \text{ 其中 } \mu_1(\bar{x}) = \frac{\mu_1 + m\tau_1^2 \bar{x}}{1 + m\tau_1^2}, \mu_2(\bar{y}) = \frac{\mu_2 + n\tau_2^2 \bar{y}}{1 + n\tau_2^2}; \\ \text{令 } \eta^2 = \eta_1^2 + \eta_2^2, \text{ 其中 } \eta_1^2 = \frac{\tau_1^2}{1 + m\tau_1^2}, \eta_2^2 = \frac{\tau_2^2}{1 + n\tau_2^2}; \text{ 则当 } -\mu(\bar{x}, \bar{y})/\eta \geq 0 \\ \text{时接受 } H_0, \text{ 否则拒绝 } H_0. \end{array} \right.$$