

LaTeX 笔记

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1 表达式与方程组

离散求和

$$H(x) = \sum_{i=0, j=0}^{N-1, M-1} (x_{i,j} = x), x = 0, 1, \dots, 255 \quad (1)$$

离散求和（方程组）

$$u = \sum_{i=0}^k \sum_{j=0}^i a_{ij} \cdot x^i y^{i-j} \quad (2)$$

$$v = \sum_{i=0}^k \sum_{j=0}^i b_{ij} \cdot x^i y^{i-j} \quad (3)$$

均方根误差 RMSE

$$RMSE_x = \sqrt{\frac{\sum_{i=0}^{N-1} (x'_i - u_i)^2}{N}} \quad (4)$$

$$RMSE_y = \sqrt{\frac{\sum_{i=0}^{N-1} (y'_i - v_i)^2}{N}} \quad (5)$$

2 向量与矩阵

矩阵表达 (斜省略号)

$$\sum_y = \begin{bmatrix} \lambda_1 & 0 & \cdots & 0 \\ 0 & \lambda_2 & & \\ & & \ddots & \vdots \\ \vdots & & & \ddots \\ 0 & \cdots & & \lambda_B \end{bmatrix}, \lambda_1 > \lambda_2 > \cdots > \lambda_B \quad (6)$$

矩阵运算

$$\begin{bmatrix} u \\ v \end{bmatrix} = \begin{bmatrix} a_0 & a_1 & a_2 \\ b_0 & b_1 & b_2 \end{bmatrix} \cdot \begin{bmatrix} 1 & x & y \end{bmatrix}^T \quad (7)$$