MC: Conhecendo o LaTeX: usos, dicas e práticas – DESAFIO

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Escreva as seguintes equações em Latex com Markdown usando o `https://stackedit.io`

$$d_{ij} = \sqrt{(\mathbf{x}_i - \mu_i)^T \mathbf{\Sigma} (\mathbf{x}_j - \mu_j)} \tag{1a}$$

$$\phi_1(v) = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{v} \exp\left(\frac{-x^2}{2}\right) dx \tag{1b}$$

$$\phi_2(v) = \frac{2}{\pi} \tan^{-1}(v) \tag{1c}$$

$$\mathbf{W}(k) = \begin{bmatrix} w_{11}(k) & w_{12}(k) & \dots & w_{1m}(k) \\ w_{21}(k) & w_{22}(k) & \dots & w_{2m}(k) \\ \vdots & \vdots & \ddots & \vdots \\ w_{m1}(k) & w_{m2}(k) & \dots & w_{mm}(k) \end{bmatrix} \tag{1d}$$

$$\mathcal{E}(\mathbf{w}) = \frac{1}{2} E_{\mathcal{T}}[\epsilon^2] + \frac{1}{2} E_{\mathcal{T}}[(f(\mathbf{x}) - F(\mathbf{x}, \mathcal{T}))^2] \tag{1e}$$

$$\mathfrak{R} = c_{11} p_1 \int_{\mathfrak{X}_1} f_{\boldsymbol{X}}(\boldsymbol{x} \mid \mathcal{C}_1) d\boldsymbol{x} + c_{22} p_2 \int_{\mathfrak{X}_2} f_{\boldsymbol{X}}(\boldsymbol{x} \mid \mathcal{C}_2) d\boldsymbol{x} \tag{1f}$$

$$\Delta w_{ij}(n) = -\eta \frac{\partial \mathfrak{E}(n)}{\partial w_{ji}(n)} \tag{1g}$$

$$J(\mathbf{w}) = \frac{\mathbf{w}^T \mathbf{C}_b \mathbf{w}}{\mathbf{w}^T \mathbf{C}_t \mathbf{w}} \tag{1h}$$

$$\beta(n) = \frac{\mathbf{r}^T(n) \mathbf{r}(n)}{\mathbf{r}^T(n-1) \mathbf{r}(n-1)} \tag{1i}$$

$$D^{2k+1} = \nabla (\nabla^2)^k \tag{1j}$$

$$\iiint ||\vec{F}||_3 \nabla(\vec{v}) = \nabla \times \vec{u} + \nabla \cdot \vec{v}(\vec{u}) \tag{1k}$$