

② int i, j, k, Soma;

float A[3][3], R[i][j], Rt[j][i];

FOR (i=0; i<3; i++)

FOR (j=0; j<3; j++)

SOMA = 0

if (i == j) {

FOR (k=0; k<i; k++)

SOMA = + R[k][i] \* R[k][j];

Rt[j][i] = Sqrt (A[i][j] - SOMA)

else if (i < j)

FOR (k=0; k<i; k++)

SOMA = + R[k][i] \* R[k][j];

Rt[j][i] = (A[i][j] - SOMA) / R[i][i];

else if (i > j)

Rt[j][i] = 0;

$$\begin{pmatrix} R_{11} & R_{12} & R_{13} \\ 0 & R_{22} & R_{23} \\ 0 & 0 & R_{33} \end{pmatrix} \cdot \begin{pmatrix} R_{11} & 0 & 0 \\ R_{12} & R_{22} & 0 \\ R_{13} & R_{23} & R_{33} \end{pmatrix} = \begin{pmatrix} 1 & 1 & 0 \\ 1 & 2 & -1 \\ 0 & -1 & 3 \end{pmatrix}$$

$$* R_{11} \cdot R_{11} = 1 = \sqrt{1} = 1$$

$$* R_{11} \cdot R_{12} = 1 = 1 \cdot R_{12} = 1$$

$$* R_{11} \cdot R_{13} = 0 = 1 \cdot R_{13} = 0$$

$$R_{13} \cdot R_{13} + R_{23} \cdot R_{23} + R_{33} \cdot R_{33} = 3$$

$$(-1)(-1) + R_{23}^2 = 3$$

$$R_{23}^2 = 3 - 1$$

$$R_{23}^2 = 2$$

$$* R_{12} \cdot R_{11} = 1 \Rightarrow R_{12} = 1$$

$$* R_{12} \cdot R_{12} + R_{22} \cdot R_{22} = 2$$

$$1 \cdot 1 + R_{22}^2 = 2 \Rightarrow R_{22}^2 = 2 - 1 = 1$$

$$* R_{12} \cdot R_{13} + R_{22} \cdot R_{23} = -1$$

$$1 \cdot 0 + 1 \cdot R_{23} = -1 \Rightarrow R_{23} = -\frac{1}{1} = -1$$

$$R = \begin{pmatrix} 1 & 1 & 0 \\ 0 & 1 & -1 \\ 0 & 0 & \sqrt{2} \end{pmatrix}$$