COMPUTE ERROR & RESIDUAL VECTORS... OF

STUDIES OF WEIZE WINE TWISTED ∞ ENTROPY, BEHAVIOR OF QUANTUM SYSTEMS

$r = b - Ax$ WHY?

IF

$$A = \begin{bmatrix} 1.2969 & 0.6648 \\ 0.2161 & 0.1441 \end{bmatrix}$$

TRUE IS

$$\begin{bmatrix} 2 \\ -2 \end{bmatrix} = x_T$$

$$x_1 = \begin{bmatrix} \phi \\ 1 \end{bmatrix}$$

$$x_2 = \begin{bmatrix} 0.9911 \\ -0.4871 \end{bmatrix}$$

$r = b - Ax$

SO,

$r_i = b - Ax_i$, $b = \begin{bmatrix} 2 \\ -2 \end{bmatrix}$

$= \begin{bmatrix} 2 \\ -2 \end{bmatrix} - \begin{bmatrix} \cdots \end{bmatrix} \begin{bmatrix} x_{i1} \\ x_{i2} \end{bmatrix}$

$r_1 = 2 - 1.2969 \cdot x_{11} - 0.6648 \cdot x_{12}$

$= 2 - 1.2969 \cdot \phi - 0.6648 \cdot 1$

$= 2 - 0.664$

$r_1 = 2.648$

ISN'T ERROR 2

TRUE @ x_{T1} IS 2

@ x_{T2} IS -2

SO FOR x_1

$\epsilon_{T1} = |2 - \phi| = 2$

$\epsilon_{T2} = |-2 - 1| = 3$

& FOR x_2

$\epsilon_{T1} = |0.9911 - 2| = 1.0089$

$\epsilon_{T2} = |-0.487| - (-2)| = 1.513$

TRUE - APPROX

$r_2 = -2 - (0.2161)(0.9911) - (0.1441)(-0.4871)$

$r_2 \approx -2.144$