Sangeeta Yadav

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1 Prove that QR orthonormalization is unique

SUPG stabilization parameter prediction with deep learning for Singularly Perturbed Differential Equation

2 Results

$$\text{Let say}$$
$$A = Q_1 R_1 \tag{1}$$
$$\text{So,} A^T A = (Q_1 R_1)^T (Q_1 R_1)$$
$$A = Q_2 R_2$$
$$From eqn 1 A^T A = Q_1 R_1 \tag{2}$$

References

[1] Lagaris, Isaac E., Aristidis Likas, and Dimitrios I. Fotiadis. "Artificial neural networks for solving ordinary and partial differential equations." IEEE transactions on neural networks 9.5 (1998): 987-1000.