

DESCRIPTION

BHS

$$\begin{aligned}\Delta u(x, y) &= (2 - \pi^2 y^2) \sin(\pi x) \\ x, y &\in [0, 1]\end{aligned}$$

$$\begin{aligned}u(0, y) &= 0 \\ u(1, y) &= 0 \\ u(x, 0) &= 0 \\ \frac{\partial u(x, 1)}{\partial y} &= 2 \sin(\pi x)\end{aligned}$$

$$u(x, y) = y^2 \sin(\pi x)$$

REFERENCES

- [1] Lagaris I E, Likas A, Fotiadis D I. Artificial neural networks for solving ordinary and partial differential equations[J]. IEEE transactions on neural networks, 1998, 9(5): 987-1000.