

DESCRIPTION

BHS

Korteweg – deVries(KdV)equation

$$\begin{aligned}u_t &= -uu_x - u_{xxx}. \\x &\in [-20, 20], t \in [0, 40] \\u(0, x) &= -\sin(\pi x/20) \\u(t, -20) &= u(t, 20) \\u_x(t, -20) &= u_x(t, 20) \\u_{xx}(t, -20) &= u_{xx}(t, 20)\end{aligned}$$

Korteweg – deVries(KdV)equation2

$$u(0, x) = \cos(-\pi x/20)$$

REFERENCES

- [1] Maziar Raissi, Paris Perdikaris. Deep Hidden Physics Models: Deep Learning of Nonlinear Partial Differential Equations.