

DESCRIPTION

BHS

Allen – Cahn Equation

$$u_t - 0.0001u_{xx} + 5u^3 - 5u = 0$$

$$x \in [-1, 1], \quad t \in [0, 1]$$

$$u(0, x) = x^2 \cos(\pi x)$$

$$u(t, -1) = u(t, 1), \quad u_x(t, -1) = u_x(t, 1)$$

REFERENCES

- [1] Maziar Raissi, Paris Perdikaris, and George Em Karniadakis. Physics Informed Deep Learning (Part I): Data-driven Solutions of Nonlinear Partial Differential Equations.