

Neural Networks, Dynamical Systems, Control Families, and Formal Languages

Linking causal and structural connectivity in pulse-output nonlinear networks

**Bound-Preserving OEDG Schemes for Aw-Rascle-Zhang
Traffic Models on Networks**

Probabilistic error analysis of CholeskyQR based on columns

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**A positivity-preserving finite difference scheme for the
Flory-Huggins-Cahn-Hilliard equation with dynamical
boundary condition**

A phase field model for deformation-induced amorphization

Natural model reduction for kinetic equations

Feature Averaging: An Implicit Bias of Gradient Descent Leading to Non-Robustness in Neural Networks

Function and Derivative Approximation by Shallow Neural Networks

From Generalization Analysis to Optimization Designs for State Space Models

Low-rank optimization on Tucker tensor varieties

Interface Laplace Learning: Learnable Interface Term Helps Semi-Supervised Learning

**Discontinuous Galerkin methods for the steady-state
solutions of Euler equations**

Phase field based thermal--fluid topology optimization method

Weak Galerkin finite element method for interface problems with curved interface



A fast numerical scheme for fractional viscoelastic models of wave propagation

Selective focusing of multiple particles in homogeneous and layered medium

Stability of Least Square Approximation under Random Sampling

