

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



Linking causal and structural connectivity in pulse-output nonlinear networks



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

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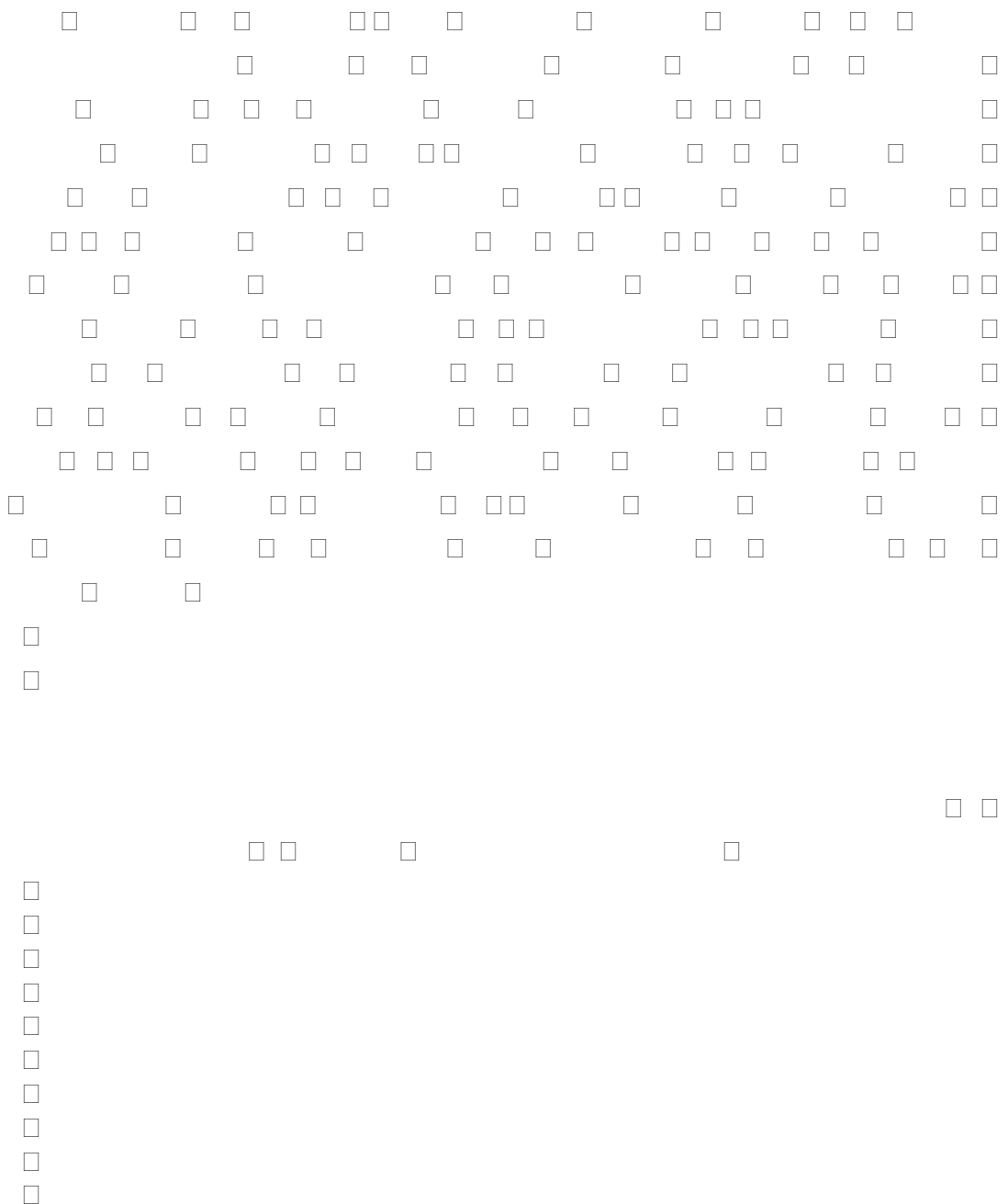
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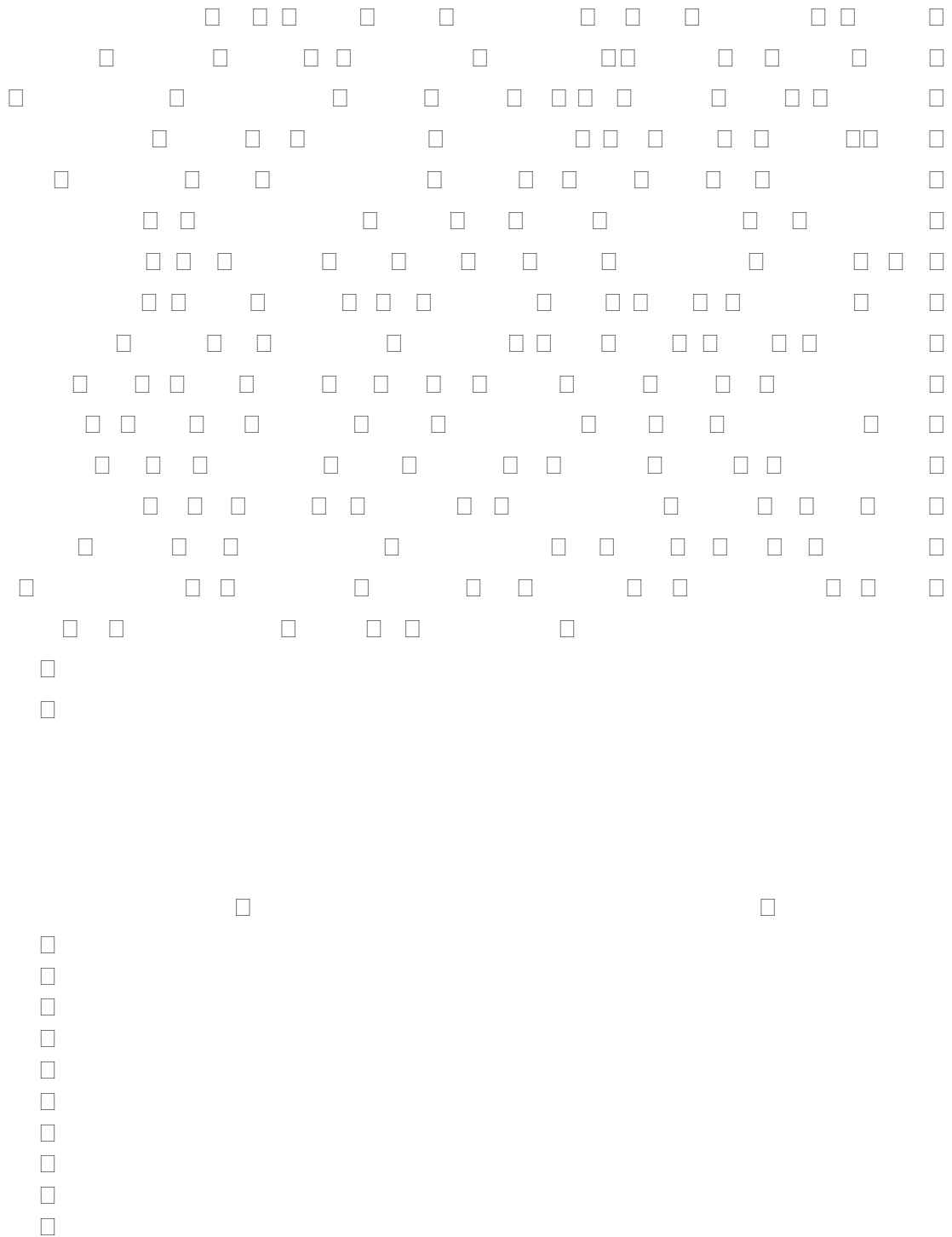
Probabilistic error analysis of CholeskyQR based on columns



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



Feature Averaging: An Implicit Bias of Gradient Descent

Leading to Non-Robustness in Neural Networks

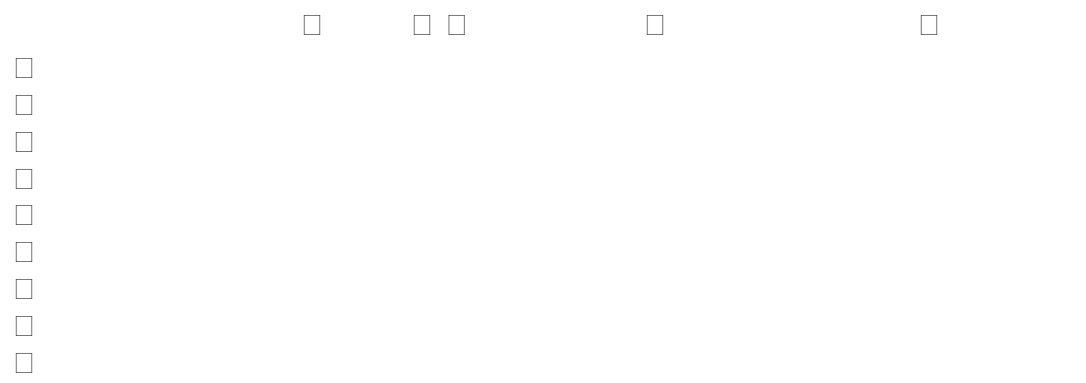
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Function and Derivative Approximation by Shallow Neural Networks

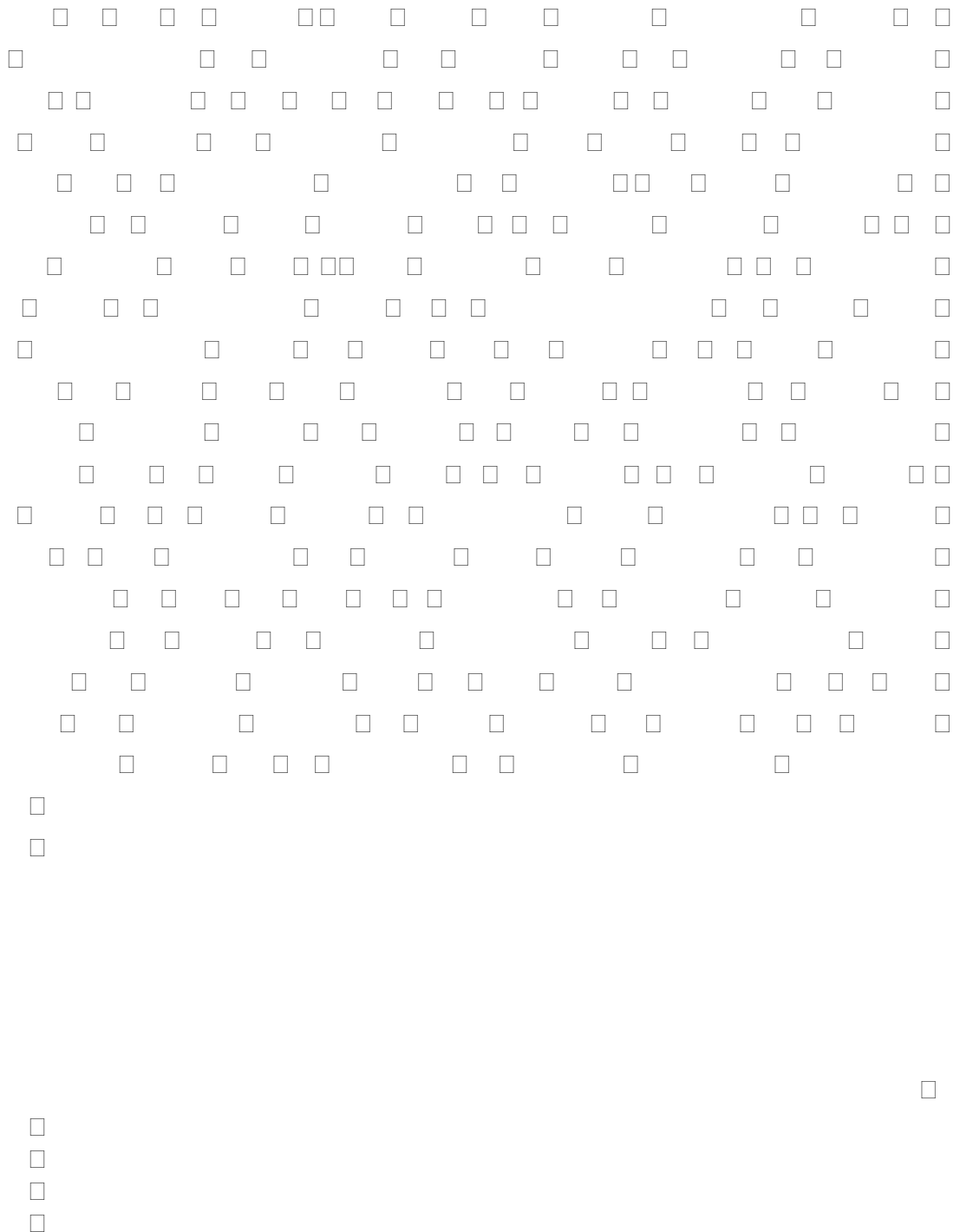


Low-rank optimization on Tucker tensor varieties

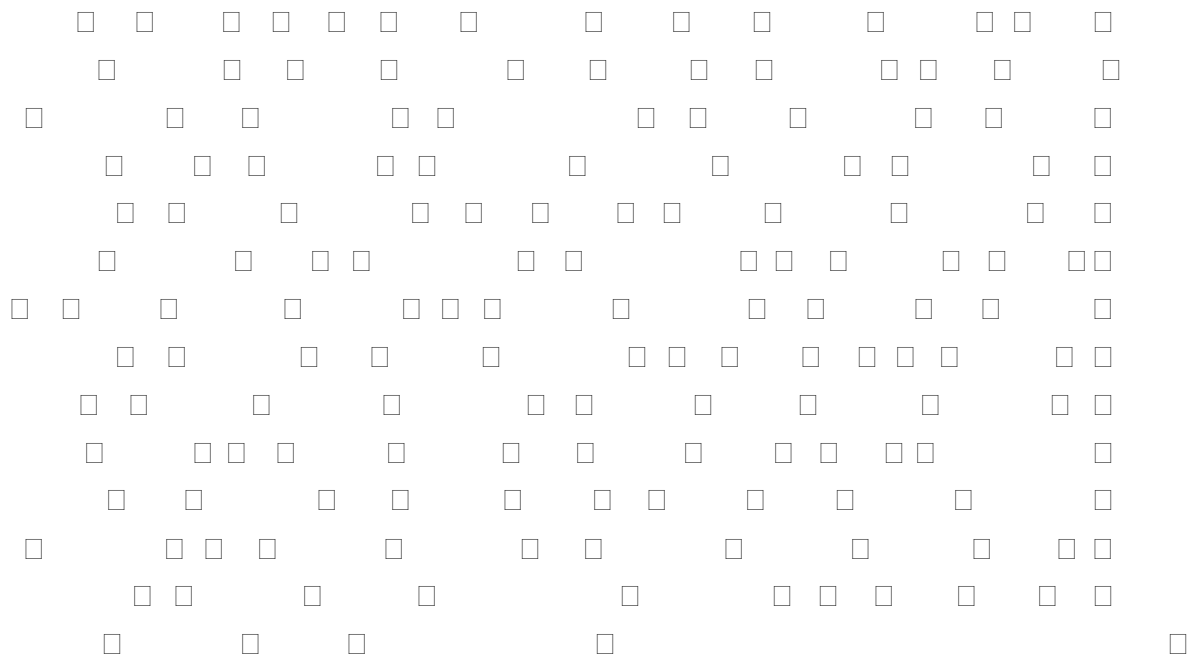
Discontinuous Galerkin methods for the steady-state solutions of Euler equations



Phase field based thermal--fluid topology optimization method



Weak Galerkin finite element method for interface problems with curved interface



Selective focusing of multiple particles in homogeneous and layered medium



Stability of Least Square Approximation under Random Sampling



