CoPhy-PGNN: Learning Physics-guided Neural Networks with Competing Loss Functions for Solving Eigenvalue Problems

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What did the authors try to accomplish?

- PGNNs trained with physics-guided loss functions
- adaptive tuning of the contribution of multiple **competing** loss functions

Is it possible to adaptively balance the importance of competing PG loss functions at different stages of neural network learning to arrive at generalizable solutions?

What were the key elements of the approach?

- CoPhy-PGNN: Competing Physics Physics-Guided Neural Networks
- dynamically adapt Lambdas at different states of training

What parts can you use yourself?

- modify the nets' objective function by adding loss functions for physical equations (PGNN)
- deal with multiple competing loss terms

What other references do you want to follow?

- implementation on GitHub