

# Semi-Supervised Cluster-Invariant Node Embeddings with NMF

**Contributions:**~ Encoding largely ignored **cluster assumption** to learn clusterable representations of nodes in a transductive graph based SSL framework.

- All available prior information for non-attributed graphs.
- Semi-Supervised Cluster Invariance Property for nodes - clustering nodes with similar labels together.

## State-of-the-art results:~

- Robust performance across 10 datasets in comparison with 8 baselines for node classification task.
- Performs outstandingly well in node clustering task with improvement upto 7% over second best model.
- Well-separated homophilous clusters!

t-SNE Visualization of embeddings for Citeseer dataset

