

graph convolution

GCN(traditional)

MixHop

key: allows full linear mixing of neighborhood information

objective: Address the limitations of the approximations that prevent these models from capturing the graph analogue of Gabor filters

computational complexity

one layer: $O(j_{\max} \times m \times s_i)$

l layers: $O(lm)$

trick

To address this limitation, we propose using a lasso regularization to automatically learn an architecture for our model(Gordon et al., 2018).

problem in reading

✓ ? Delta Operators solved

it is a Chebyshev rank-2 approximation of multiplication in the Graph Fourier basis, defined to be the eigenbasis of the graph Laplacian

three assumptions

it assumes that the two coefficients of the Chebyshev polynomials multiply to -1

a renormalization trick adds self-connections (identity matrix) to A before, rather than after, normalization

code available [!\[\]\(3342c215b2a8b663596a81468d5dc314_img.jpg\)](#)