

# graph convolution

GCN(traditional)

key: allows full linear mixing of neighborhood information

objective

computational complexity

one layer:  $O(\max \times m \times si)$

$l$  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).

MixHop

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