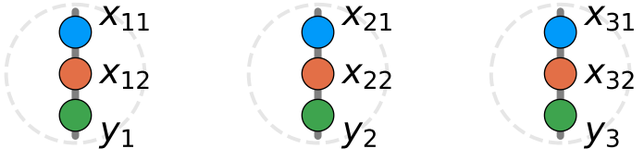
Data Type

Graph Attribute Field

Linear Discriminative Algo.

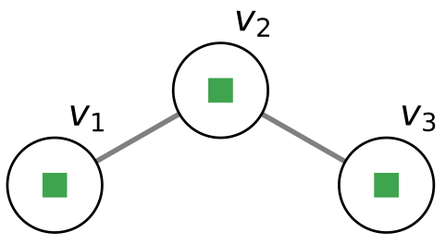
i.i.d. data (**X, y**)



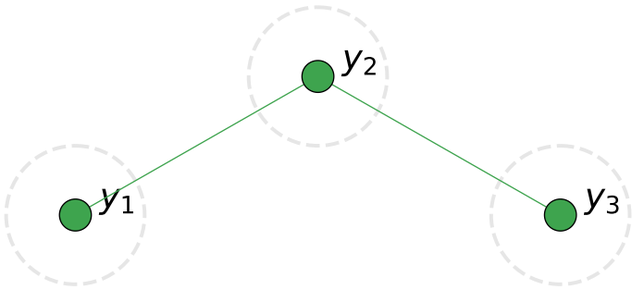
condition on **X**

linear regression

$E[\mathbf{y}_U|\mathbf{X}] = (\mathbf{X}\beta)_U$



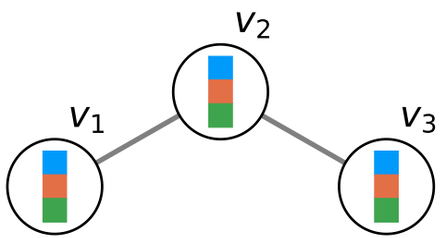
graph data (**y**, G)



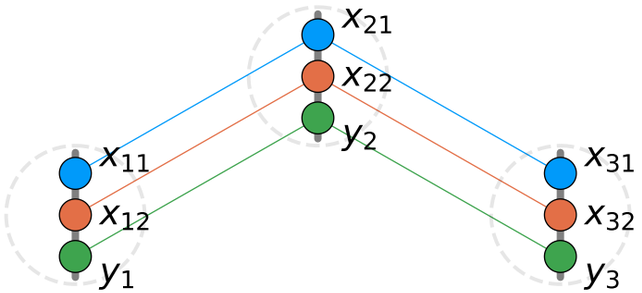
condition on $\mathbf{y}_L$

label propagation

$E[\mathbf{y}_U|\mathbf{y}_L] = -(\mathbf{I} + \omega\mathcal{L})^{-1}_{UU}(\mathbf{I} + \omega\mathcal{L})_{UL}\mathbf{y}_L$



graph data (**X**, **y**, G)



condition on **X**

linear regression with FS

$E[\mathbf{y}_U|\mathbf{X}] = [(\mathbf{I} + \omega\mathcal{L})^{-1}\mathbf{X}\beta]_U$

condition on $\mathbf{y}_L$

+nonlinearity

residual propagation

$E[\mathbf{y}_U|\mathbf{X}, \mathbf{y}_L] = \cdots$

graph convolutional network