

node message

edge message

$$z^{(\ell+1)} = g_G(\mathbf{m}_E^{(\ell)}, \mathbf{m}_V^{(\ell)}, z^{(\ell)})$$

$$\mathbf{m}_E^{(\ell)} = f_{E \rightarrow G}(\{\mathbf{e}_{ij}^{(\ell)}, \forall (i, j) \in E\})$$

$$\mathbf{m}_V^{(\ell)} = f_{V \rightarrow G}(\{\mathbf{h}_i^{(\ell)}, \forall v_i \in V\})$$

aggregations