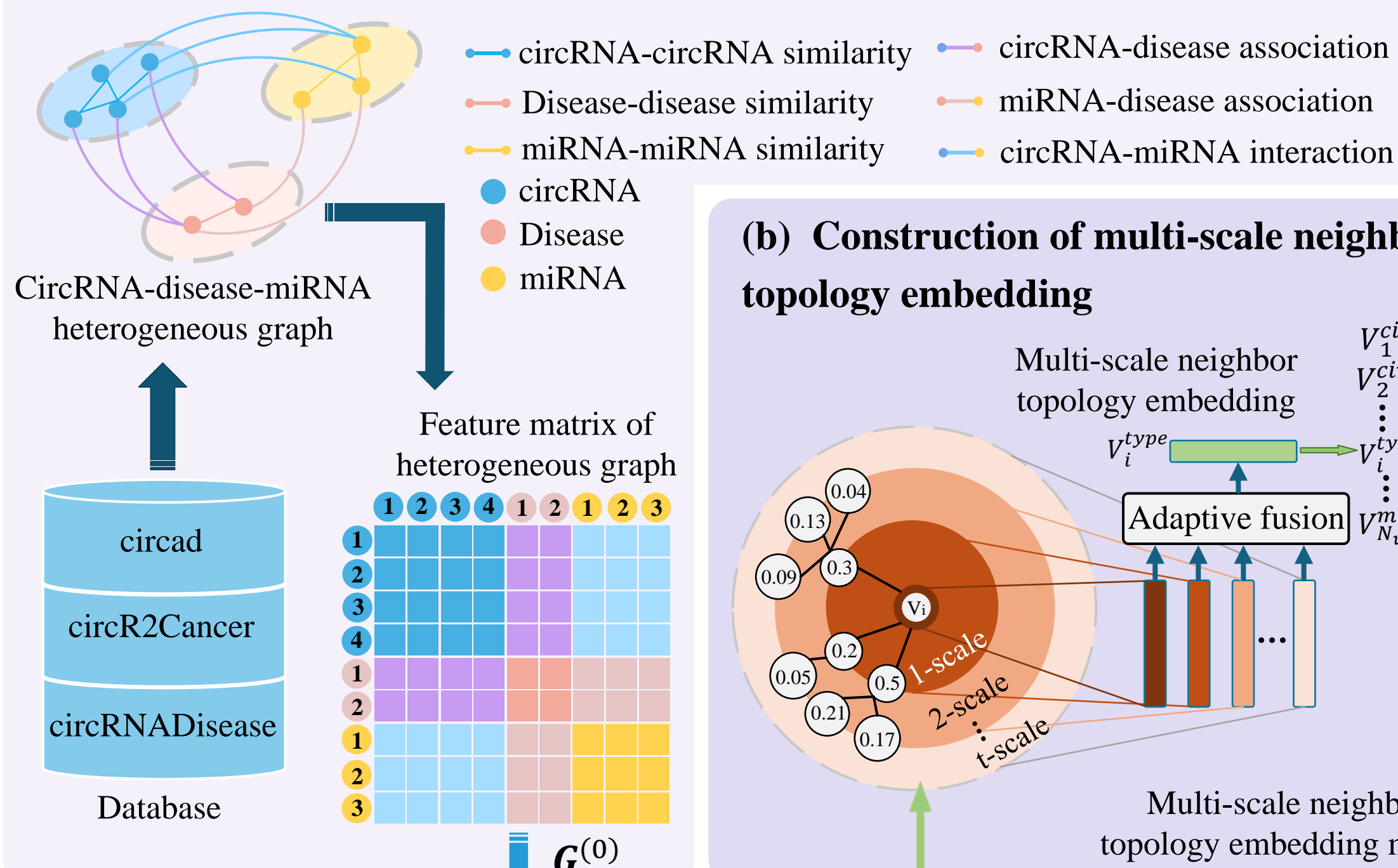
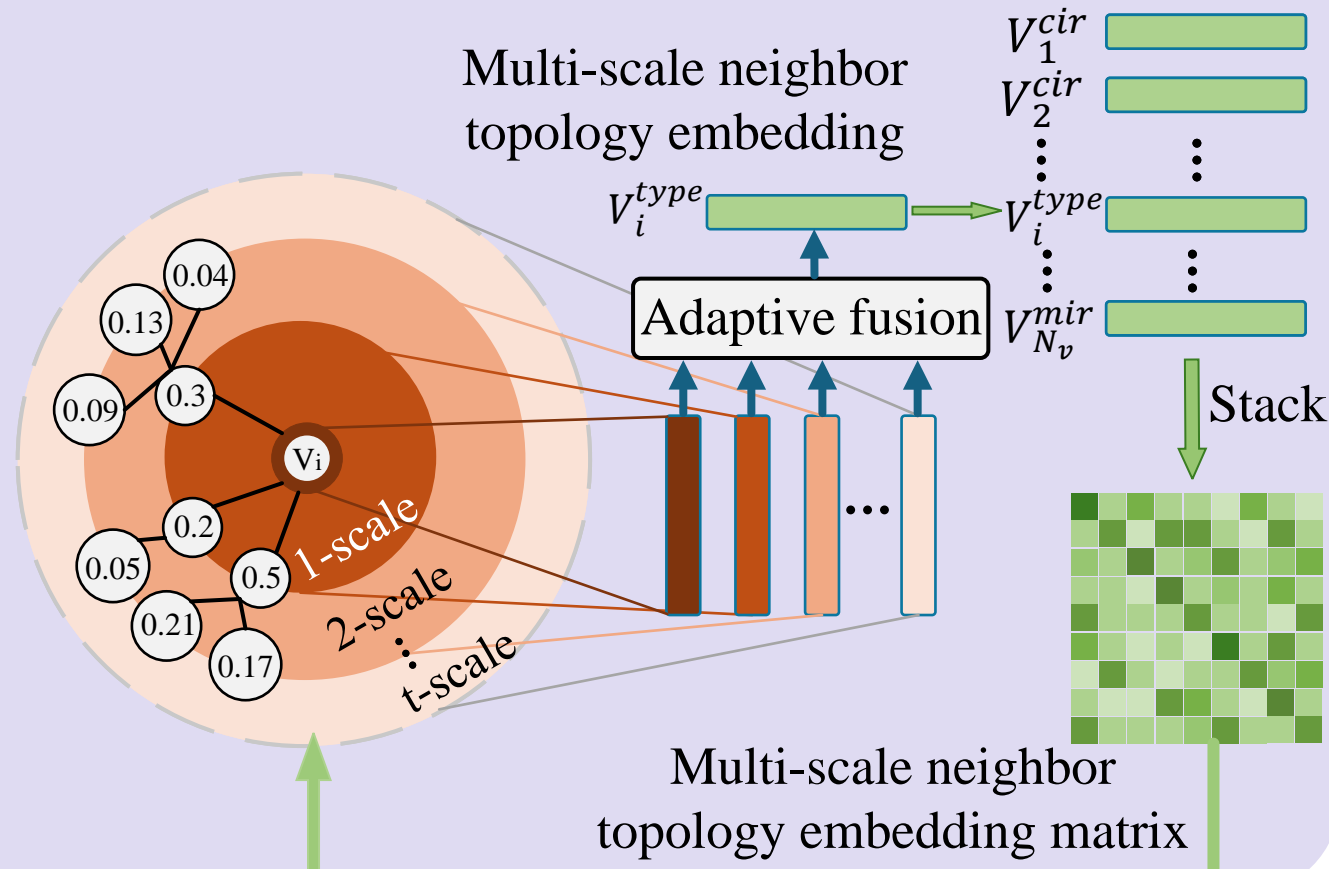


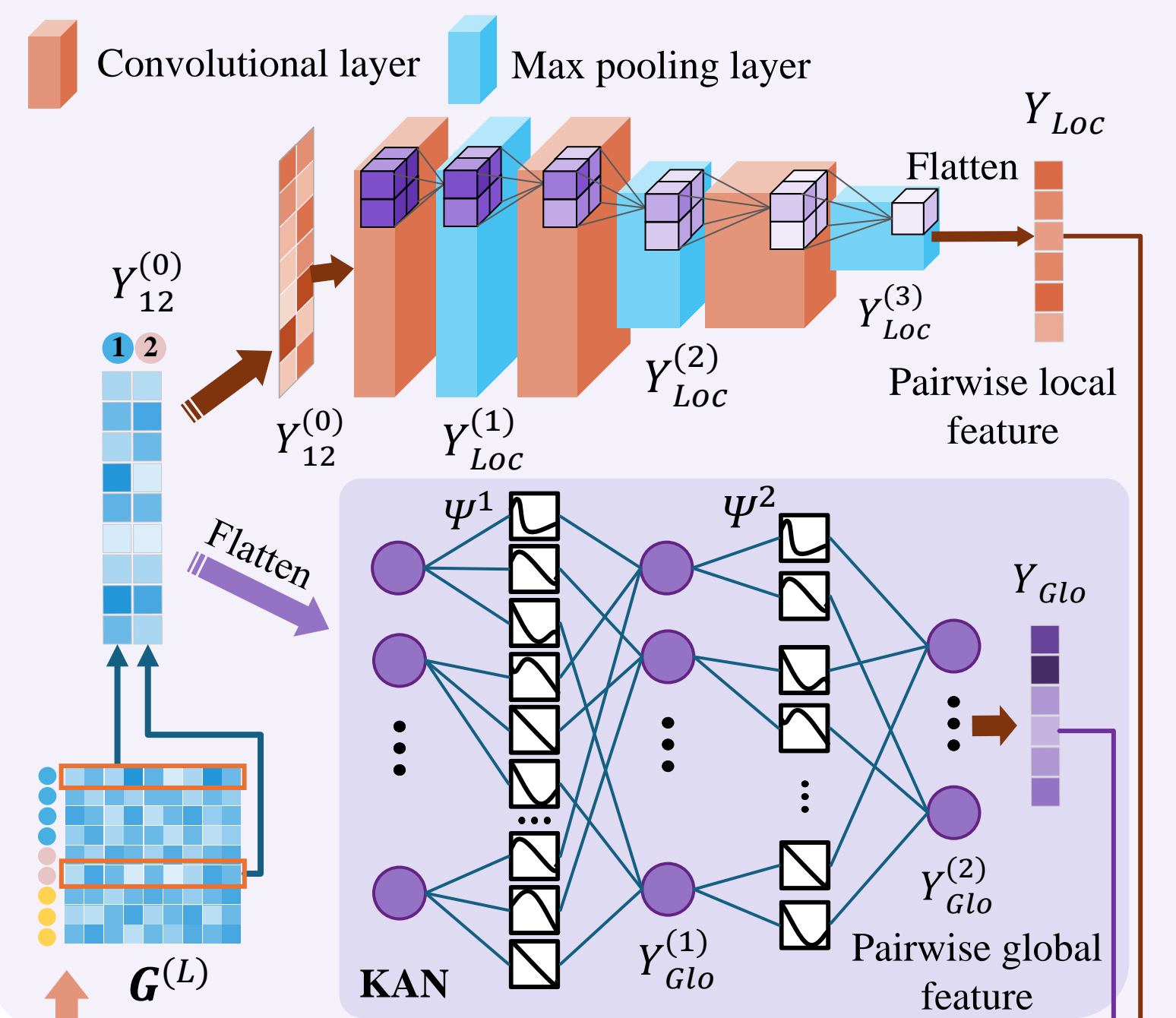
(a) Construction of circRNA-disease-miRNA heterogeneous graph



(b) Construction of multi-scale neighbor topology embedding



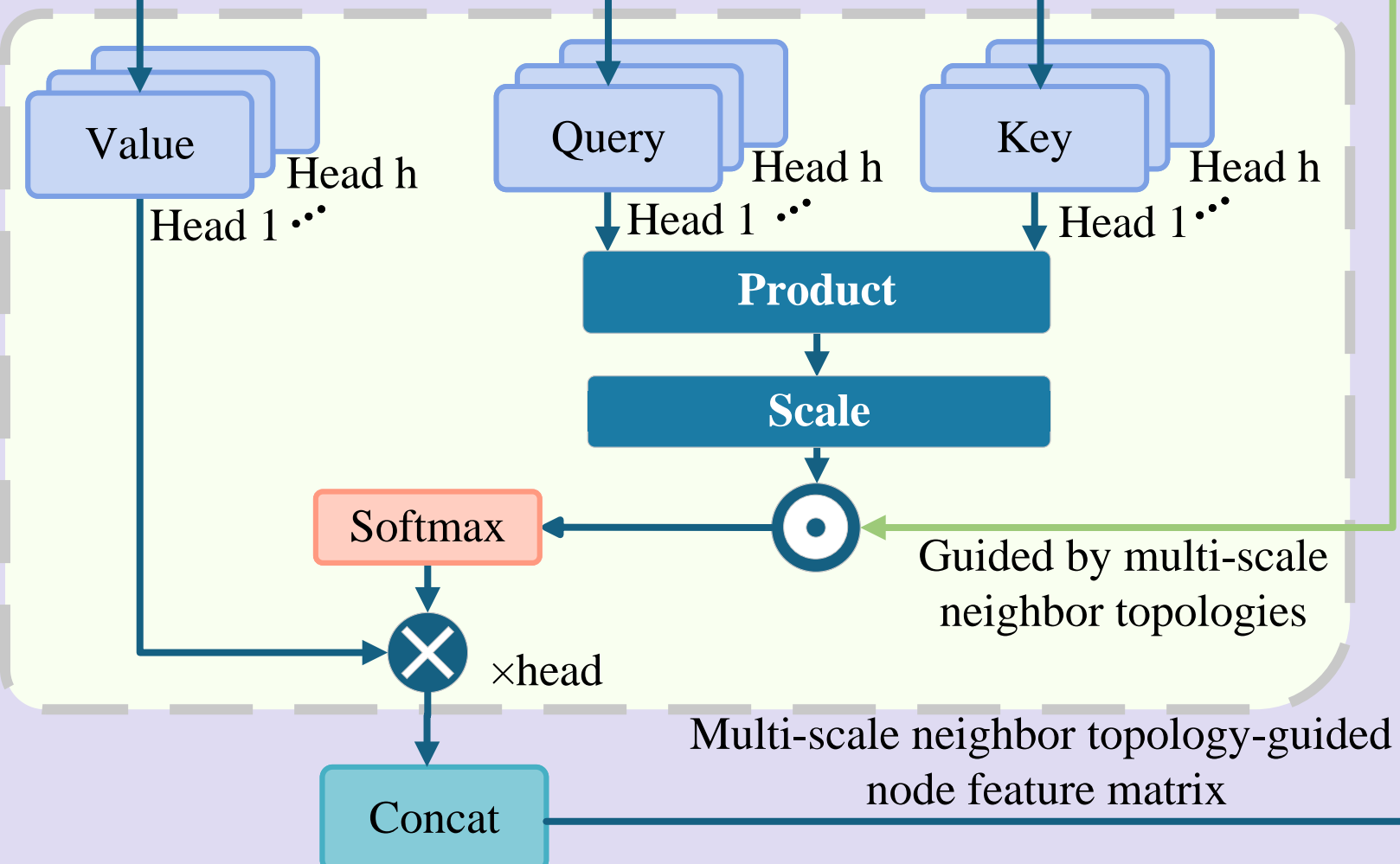
(e) Adaptive KAN and CNN combination for enhanced pairwise feature learning



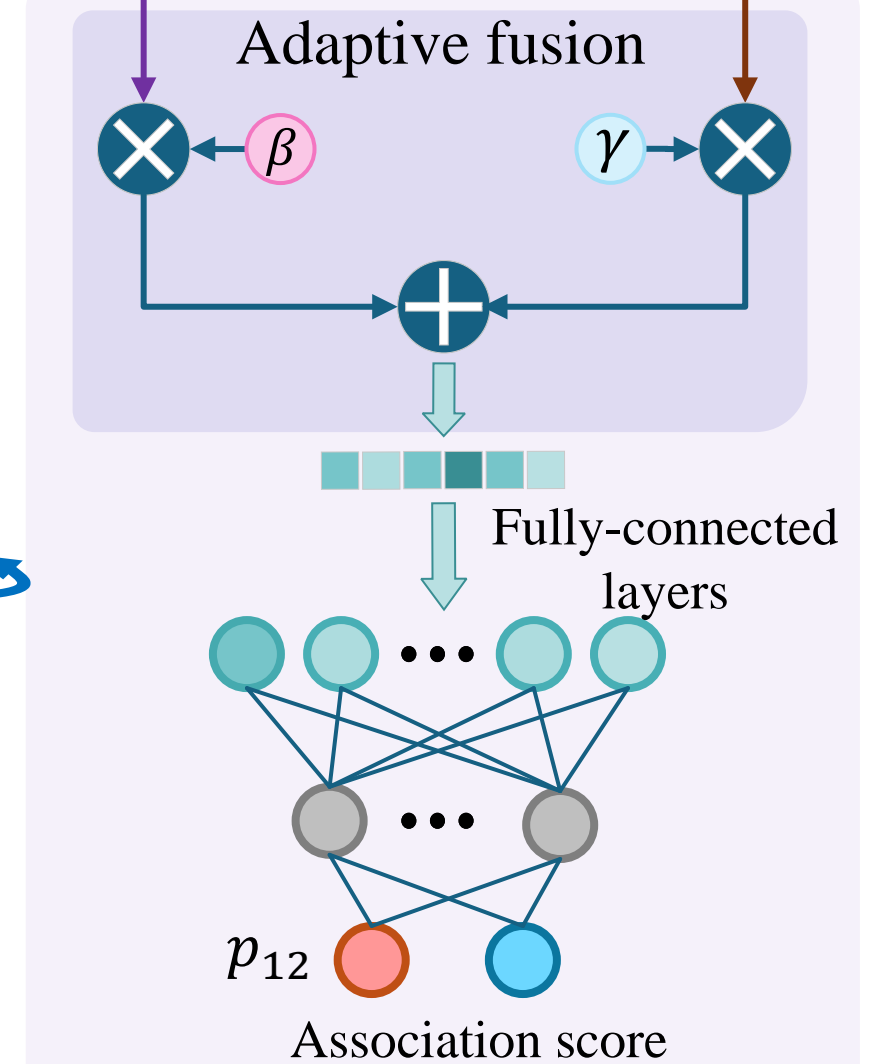
Graph feature matrix G

R

(d) Fusion of topological and original feature by FGN



(c) Node feature learning by DMTT



(f) Association score evaluation