Methodology
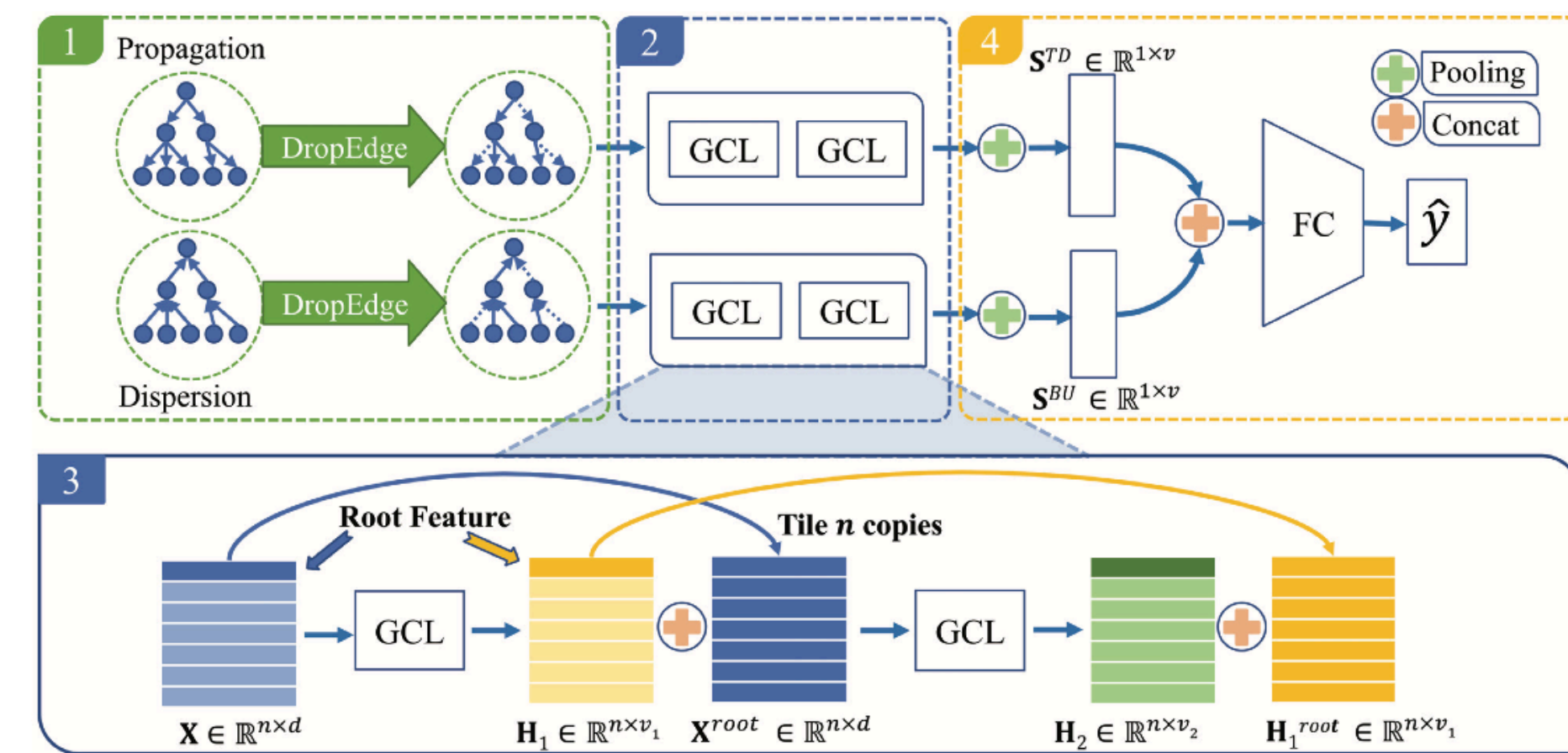## Optimizing

- Train all the parameters in the Bi-GCN model by minimizing the cross-entropy of the predictions and ground truth distributions, Y, over all events, C.

- L_2 regularizer is applied in the loss function over all model parameters.

Experiments
Datasets

- Nodes refer to users, edges represent retweet retweet or response relationship.

- Features are the extracted top–5000 words in terms of the TF–IDF values.

- Weibo labels: True (T), False (F)

- Twitter labels: Non–rumor (N), True (T), False (F), Unverified (U)

Table 1: Statistics of the datasets

Statistic	Weibo	Twitter15	Twitter16
# of posts	3,805,656	331,612	204,820
# of Users	2,746,818	276,663	173,487
# of events	4664	1490	818
# of True rumors	2351	374	205
# of False rumors	2313	370	205
# of Unverified rumors	0	374	203
# of Non-rumors	0	372	205
Avg. time length / event	2,460.7 Hours	1,337 Hours	848 Hours
Avg. # of posts / event	816	223	251
Max # of posts / event	59,318	1,768	2,765
Min # of posts / event	10	55	81