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

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Baselines

- **DTC (2011):** Decision Tree classifier based on various handcrafted features
- **SVM-RBF (2012):** SVM-based model with RBF kernel, using handcrafted features
- **SVM-TS (2015):** linear SVM classifier that leverages handcrafted features to construct time-series model
- **SVM-TK (2017):** SVM classifier with a propagation Tree Kernel on the basis of the propagation structures
- **RvNN (2018):** tree-structured recursive neural networks with GRU units that learn rumor representations via the propagation structure
- **PPC_RNN+CNN (2018):** combining RNN and CNN, which learns the rumor representations through the characteristics of users in the rumor propagation path