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Open research positions in **SNAP** group are available at **undergraduate, graduate** and **postdoctoral** levels.

Stack Overflow temporal network

Dataset information

This is a temporal network of interactions on the stack exchange web site Stack Overflow. There are three different types of interactions represented by a directed edge (u, v, t):

- user u answered user v's question at time t (in the graph sx-stackoverflow-a2q)
- user u commented on user v's question at time t (in the graph sx-stackoverflow-c2q)
- user u commented on user v's answer at time t (in the graph sx-stackoverflow-c2a)

The graph sx-stackoverflow contains the union of these graphs. These graphs were constructed from the Stack Exchange Data Dump. Node ID numbers correspond to the 'OwnerUserId' tag in that data dump.

Dataset statistics (sx-stackoverflow)

Nodes	2601977
Temporal Edges	63497050
Edges in static graph	36233450
Time span	2774 days

Dataset statistics (sx-stackoverflow-a2q)

Nodes	2464606
Temporal Edges	17823525
Edges in static graph	16266395
Time span	2774 days

Dataset statistics (sx-stackoverflow-c2q)

Nodes	1655353
Temporal Edges	20268151
Edges in static graph	11226829
Time span	2773 days

Dataset statistics (sx-stackoverflow-c2a)

Nodes	1646338
Temporal Edges	25405374
Edges in static graph	11370342
Time span	2773 days

Source (citation)

- Ashwin Paranjape, Austin R. Benson, and Jure Leskovec. "Motifs in Temporal Networks." In Proceedings of the Tenth ACM International Conference on Web Search and Data Mining, 2017.

Files

File	Description
sx-stackoverflow.txt.gz	All interactions
sx-stackoverflow-a2q.txt.gz	Answers to questions
sx-stackoverflow-c2q.txt.gz	Comments to questions
sx-stackoverflow-c2a.txt.gz	Comments to answers

Data format

```
SRC DST UNIXTS
```

where edges are separated by a new line and

- `SRC`: id of the source node (a user)
- `TGT`: id of the target node (a user)
- `UNIXTS`: Unix timestamp (seconds since the epoch)