Poster Location: 5

Retrieving top-weighted triangles in graphs

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Nearly all methods for triangle-mining are for unweighted graphs.

Many networks have a natural notion of weight.

The weight of a triangle is the mean of its edges (more generally, p-mean).

We present a suite of algorithms for fast top-weighted triangle enumeration.
(Applications: link prediction, community detection)

Able to compute top-100k triangles in a 2-billion edge graph in <30s.

Our key algorithmic insight exploits "power-law" properties of real-world networks.

We also derive sampling algorithms inspired from unweighted triangle counting algorithms.

Please come to our poster at poster location 5 for more details.

Thanks!

(For listening to this extra “lightning” lightning talk)