

# Annotate K-Core (Unweighted & Directed)

## Description

This algorithm adds an attribute to each node that specifies the k-core that node belongs to. The k-core a node belongs to is the last k-core it would be part of before being removed from the graph in the next k-core. To find a k-core, recursively remove every node with fewer than k edges connected to it.

## Applications

A k-core is a part of a graph with strong structure. K-cores have been analyzed for their properties, as indicators of the structure of the graph, and to help visualize graphs.

## References

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S. B. Seidman, Network structure and minimum degree, Social Networks 5:269-287.

Size and Connectivity of the k-core of a Random Graph. ?uczak, Tomasz.

Generalized Cores. V. Batagelj, M. Zaversnik.

k-Core Organization of Complex Networks. Dorogovtsev, Goltsev, Mendes

## See Also



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