

Extract Co-Author Network

Menu path

Data Preparation > Database > ISI > Co-Author Network

Description

Extracts the co-authorship network from an ISI database.

Each author from each document in the input database is represented by a node. An edge is drawn between the nodes for two authors if and only if they co-authored a document in the input database.

Analysis

The output network will include the following summaries of your dataset:

- Node (Author)
 - Number of documents authored in your dataset.
 - Total number of times cited. Note that this according to per-document citations in the global dataset as recorded by ISI and not according to citations contained only within your dataset.
 - Publication year of the earliest document.
 - Publication year of the most recent document.
- Edge (Co-Authorship)
 - The number of works co-authored by the two connected authors.
 - This figure is also given with three common normalizations: [Jaccard](#), [cosine](#), and [Dice](#).
 - Publication year of the earliest collaboration.
 - Publication year of the most recent collaboration.

Usage Hints

Load an ISI file into the tool, then create a database from it using [the ISI database loader](#).

For a quick analysis of a small dataset you may wish to [merge together author entities with identical names](#). For a scientifically sound analysis of a larger dataset, you can [find author entity merging suggestions](#) (or manually set your own merging orders from scratch) and [perform the merge](#).

Implementation Details

The specific query run by the tool can be found in the [source code](#).